AMENDMENT OF SOLICITATION	ON/MODIFICATI	ON OF CONTRACT	1. Contract		Page 1 Of 36
2. Amendment/Modification No.	3. Effective Date	4. Requisition/Purchase Req	No. 5. Project No.		. (If applicable)
0002		SEE SCHEDULE			
6. Issued By	Code w56HZV	7. Administered By (If other	than Item 6)		Code
TACOM AMSTA-AQ-ATBD JOE TARNOWIECKI (586)574-8839 WARREN, MICHIGAN 48397-5000					
HTTP://CONTRACTING.TACOM.ARMY.MIL EMAIL: TARNOWIJ@TACOM.ARMY.MIL		SCD	PAS	ADP	рт
8. Name And Address Of Contractor (No., Stre	et, City, County, State and	ļ <u>, , , , , , , , , , , , , , , , , , ,</u>		nt Of Solicitation	
,	, ,,			2001	
			DAAE07-03-R- 9B. Dated (See		
			2003MAR19	7 Term 11)	
			10A. Modifica	tion Of Contra	ct/Order No.
			10B. Dated (Se	ee Item 13)	
Code Facility Code					
		ES TO AMENDMENTS OF S			
The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers is extended, is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing items 8 and 15, and returning 2 signed copies of the amendments: (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. Accounting And Appropriation Data (If req	(uired)				
13. THIS		O MODIFICATIONS OF CO act/Order No. As Described In		DERS	
A. This Change Order is Issued Pursuan The Contract/Order No. In Item 104			The Cl	hanges Set Fort	h In Item 14 Are Made In
B. The Above Numbered Contract/Orde Set Forth In Item 14, Pursuant To T		9 1	uch as changes	in paying office	e, appropriation data, etc.)
C. This Supplemental Agreement Is Ent	ered Into Pursuant To Au	thority Of:			
D. Other (Specify type of modification a	nd authority)				
E. IMPORTANT: Contractor is not,	is required to sign	this document and return		copies to the Iss	suing Office.
14. Description Of Amendment/Modification (C	Organized by UCF section	headings, including solicitation	n/contract subje	ect matter when	re feasible.)
SEE SECOND PAGE FOR DESCRIPTION					
Except as provided herein, all terms and conditand effect. 15A. Name And Title Of Signer (Type or print)		renced in item 9A or 10A, as he			
15D C	150 B : 0	1/0 1/1 1/2 1/2 1/2	•		1/0 P / 5'
15B. Contractor/Offeror	15C. Date Signed	16B. United States Of By	America		16C. Date Signed
(Signature of person authorized to sign)			of Contracting (FORM 20 (DEV. 10.92)

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SECTION A - SUPPLEMENTAL INFORMATION

The purpose of Amendment 0002 to Solicitation DAAE07-03-R-S001 is to make the following corrections and or changes to the solicitation:

Revise the reference in CLIN 0001 from Data Item Clin to read First Article Clin.

Revise Section C.22.b to remove the sentence "Draft Equipment Publication (DEP) pages will be acceptable to support testing."

Revise Sections C.22 and C.23 that refer to TM 9-2330-331-14&P to read TM 9-2330-359-14&P.

Correct Section C.25.g to read "Man-day Cost Any costs incurred by the Field Service Representative (FSR) over and above those as recognized in the Joint Travel Regulation will not be reimbursed."

The reference to FAR Clause 52.2466-2, Inspection of Supplies-Fixed Price PADDS Clause, is corrected to read, "FAR Clause 52.246-2, Inspection of Supplies-Fixed Price."

Correct Section L.4.1.b to read "One copy o this solicitaiton (Section A (Pages 1-2),B (Pages 3-19),I (Pages 20-54),J (Page 55 and all Attachements and Exhibits), and K (Pages 56-82))...."

Correct Section M.1.6.3 second fiscal year deliveries from Camp Roberts, PA to read Camp Roberts, CA.

Add the following FAR/DFAR Clauses to the Solicitation:

DFAR 252.225-7021 Trade Agreements Act

DFAR 252.225-7020 Trade Agreements Certificate

DFAR 252.225-7037 Duty-Free Entry-Eligible End Products

FAR 52.211-14 Notice of Priority Rating For National Defence Use

FAR 52.211-15 Defense Priority and Allocation Requirements

Delete the following FAR Clause from the Solicitation:

FAR 52-211-4019 Sources of Supply For Tires On Tactical Wheeled Vehicles-Alternate FAR 52-225-1 Buy American Act-Balance of Payments Program-Supplies (41 U.S.C. 10a-10d)

The following changes are made to the Purchase Description Attachment 001:

Reference to STANAG 2606 is deleted on page 3, paragraph 2.2, NATO STANDARDIZATION AGREEMENT (STANAG)

Paragraph 3.8 of the Purchase Description is changed to read "Upper fifth wheel height (empty) from the ground to underside of upper 5th wheel plate and 51+/-1 inches empty", in lieu of "Upper 5th wheel height (empty/w full payload) 52 inches empty."

In Paragraph 3.10.1, the first sentence is changed to read "so 60% is the design goal and has a +/-5% tolerance of the stlr gross weight", in lieu of "so 60% of the stlr gross weight".

Paragraph 3.10.2, first sentence, the reference to 49CFR393.107 is corrected to read "49CFR393.207"

Paragraph 3.11.0 of the Purchase Description is replaced with the following:

Provide single wheel mounting lug nut, galvanized for each wheel stud. Provide single wheel/axle end galvanized pro torque type mounting nut, for each axle end.

In Paragraph 3.11.1.b the requirement for "2 ground jack boards" is deleted.

In Paragraph 3.13 "or an equivalent fastening system that provides comparable characteristics for maintaining torque and the necessary strength properties." has been inserted after "it shall be bolted in place with Huck Bolts". The sentence "The lip shall provide for a smooth interface with the M915A3/A4 5th wheel top plate urethane inserts. All lip edges shall have a 1/4" 45 degree chamfer (except back edge). The lip may have cutouts for electrical and brake air provisions." has been added.

Paragraph 3.14.q has been changed from 51" to 50"

Paragraph 3.14.s of the Purchase Description is revised to read Reserved.

Paragraph 3.15.1 is revised to allow for protruding rear side marker lights.

Paragraph 3.15.4. Table IV letter assignments G through L are revised to change the letter assignments to read "HJKLMN".

In Paragraph 3.18, second sentence, the expression "steel rub rail is changed to read "stainless steel rub rail".

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In Paragraph 3.18.1, first sentence, the term "road load tested" is removed.

In Paragraph 3.18.2 of the Purchase Description, the word "Protruding" is deleted. The third sentence, the expression "main rub rail is changed to read "main stainless steel rub rail"

In Paragraph 3.18.3, the sixth sentence "The wrap-around model shall include the side kits and bows." is deleted in its entirety.

In Paragraph 3.20 of the Purchase Description the last part of paragraph 3.20 The second sentence will be replaced with "The roof bows shall be spaced on centers of not more than 48 inches." The second part of the sentence - "with bow curvature height of not less than 14 inches above the top of the racks(panels)" is deleted.

In Paragraph 3.21.f the sentence "Mating bolt-on stowage/clamp/screw together parts are to have mating surfaces cleaned, treated, primed and painted (with top coat) before assembly." has been deleted.

Paragraph 3.21.1.a has been changed to read "Clean ferrous metal by shot or sand blasting."

Paragraph 3.21.1.b has been changed to incorporate "or with an alternate process verified to be the equivalent of or better."

Paragraph 3.21.1.e has been changed to delete the word "camouflage".

In Paragraph 3.25.4 the second to last sentence has been changed to "They are to be located with two in the front, two in the back, and four in the middle of the stlr."

In Paragraph 3.25.5 the last sentence of this paragraph that reads, "These cargo deck tiedown provisions are to be Peck and Hale p/n F133.1.1 or equivalent with respect to performance, features, and dimensional characteristics" has been deleted in its entirety.

In Paragraph 3.25.10 the second sentence "Shock and Vibration of the stlr shall be IAW TB 55-100" is deleted .

In Paragraph 3.25.11 of the Purchase Description the last sentence "in addition, the stlr is to have four (4) "Sealand" container securement devices installed such that the 35 Sealand container is center with respect to fore and aft locations" is deleted in its entirety.

In Paragraph 3.26.1 the requirement for a "Jack support block" is deleted.

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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS				
001	FIRST ARTICLE CLIN				
001	FIRST ARTICLE CHIN				
	SECURITY CLASS: Unclassified				

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SECTION H - SPECIAL CONTRACT REQUIREMENTS

 Status
 Regulatory Cite
 Title
 Date

 H-1 ADDED
 252.225-7037
 DUTY-FREE ENTRY-ELIGIBLE END PRODUCTS
 MAR/1998

- (a) Definition. "Eligible end product," as used in this clause, means-
- (1) "Designated country end product," "Caribbean Basin country end product," or "NAFTA country end product," as defined in the Trade Agreements clause of this contract;
- (2) "NAFTA country end product," as defined in the Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program clause of this contract; or
- (3) "Canadian end product," as defined in Alternate I of the Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program clause of this contract.
- (b) The requirements of this clause apply to this contract and subcontracts, including purchase orders, that involve delivery of eligible end products to be accorded duty-free entry whether placed-
 - (1) Directly with a foreign concern as a prime contract; or
 - (2) As a subcontract or purchase order under a contract with a domestic concern.
- (c) Except as otherwise approved by the Contracting Officer, no amount is or will be included in the contract price for duty for eligible end products.
 - (d) The Contractor warrants that-
- (1) All eligible end products, for which duty-free entry is to be claimed under this clause, are intended to be delivered to the Government; and
- (2) The Contractor will pay any applicable duty to the extent that such eligible end products, or any portion thereof (if not scrap or salvage) are diverted to nongovernmental use, other than as a result of a competitive sale made, directed, or authorized by the Contracting Officer.
- (e) The Government agrees to execute duty-free entry certificates and to afford such assistance as appropriate to obtain the duty-free entry of eligible end products for which the shipping documents bear the notation specified in paragraph (f) of this clause, except as the Contractor may otherwise agree.
- (f) All shipping documents submitted to Customs, covering eligible end products for which duty-free entry certificates are to be issued under this clause, shall-
 - (1) Consign the shipments to the appropriate-
 - (i) Military department in care of the Contractor, including the Contractor's delivery address; or
 - (ii) Military installation; and
 - (2) Include the following information-
 - (i) Prime contract number, and delivery order if applicable;
 - (ii) Number of the subcontract/purchase order for foreign supplies if applicable;
 - (iii) Identification of carrier;
 - (iv)
- (A) For direct shipments to a U.S. military installation, the notation: UNITED STATES GOVERNMENT, DEPARTMENT OF DEFENSE Duty-Free Entry to be claimed pursuant to Section XXII, Chapter 98, Subchapter VIII, Item 9808.00.30 of the Harmonized Tariff Schedule of the United States. Upon arrival of shipment at the appropriate port of entry, District Director of Customs, please release shipment under 19 CFR part 142, and notify Commander, Defense Contract Management Command (DCMC) New York, ATTN: Customs Team, DCMDN-GNIC, 207 New York Avenue, Staten Island, New York 10305-5013, for execution of Customs Forms

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7501, 7501A, or 7506 and any required duty-free entry certificates.

- (B) In cases where the shipment will be consigned to other than a military installation, e.g., a domestic contractor's plant, the shipping document notation shall be altered to insert the name and address of the contractor, agent or broker who will notify Commander, DCMC, NY, for execution of the duty-free certificate. (Note: In those instances where the shipment will be consigned to a contractor's plant and no duty-free entry certificate is required, the contractor or its agent shall claim duty-free entry under NAFTA or other trade agreement and shall comply with the U.S. Customs Service requirements. No notification to Commander, DCMC, NY, is required.
- (v) Gross weight in pounds (if freight is based on space tonnage, state cubic feet in addition to gross shipping weight);
- (vi) Estimated value in U.S. dollars; and
- (vii) Activity Address Number of the contract administration office actually administering the prime contract, e.g., for DCMC Dayton, S3605A.
 - (g) Preparation of customs forms.
- (1) Except for shipments consigned to a military installation, the Contractor shall prepare, or authorize an agent to prepare, any customs forms required for the entry of eligible end products in connection with DoD contracts into the United States, its possessions, or Puerto Rico. The completed customs forms shall be submitted to the District Director of Customs with a copy to DCMC NY for execution of any required duty-free entry certificates. Shipments consigned directly to a military installation will be released in accordance with 10.101 and 10.102 of the U.S. Customs regulations.
- (2) For shipments containing both supplies that are to be accorded duty-free entry and supplies that are not, the Contractor shall identify on the customs forms those items that are eligible for duty-free entry.
 - (h) The Contractor agrees-
- (1) To prepare (if this contract is placed directly with a foreign supplier), or to instruct the foreign supplier to prepare, a sufficient number of copies of the bill of lading (or other shipping document) so that at least two of the copies accompanying the shipment will be available for use by the District Director of Customs at the port of entry;
 - (2) To consign the shipment as specified in paragraph (f) of this clause; and
 - (3) To mark the exterior of all package as follows:
 - (i) "UNITED STATES GOVERNMENT, DEPARTMENT OF DEFENSE;" and
 - (ii) The activity address number of the contract administration office actually administering the prime contract.
- (i) The Contractor agrees to notify the Contracting Officer administering the prime contract in writing of any purchase under the contract of eligible end products to be accorded duty-free entry that are to be imported into the United States for delivery to the Government or for incorporation in end items to be delivered to the Government. The notice shall be furnished to the contract administration office immediately upon award to the supplier of the eligible end products. The notice shall contain-
 - (1) Prime contractor's name, address, and CAGE code;
 - (2) Prime contract number, and delivery order number if applicable;
 - (3) Total dollar value of the prime contract or delivery order;
 - (4) Expiration date of the prime contract or delivery order;
 - (5) Foreign supplier's name and address;
 - (6) Number of the subcontract/purchase order for eligible end products;
 - (7) Total dollar value of the subcontract for eligible end products;
 - (8) Expiration date of the subcontract for eligible end products;
 - (9) List of items purchased;

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(10) An agreement by the Contractor that any applicable duty shall be paid by the Contractor to the extent that such eligible end products are diverted to nongovernmental use other than as a result of a competitive sale made, directed, or authorized by the Contracting Officer; and

(11) The scheduled delivery date(s).

[End of Clause]

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SECTION I - CONTRACT CLAUSES

Status Regulatory Cite

1-1 ADDED 52.211-15 DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS SEP/1990

1-2 CHANGED 52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUES OR MAY/2002

EXECUTIVE ORDERS--COMMERCIAL ITEMS

- (a) The Contractor shall comply with the following FAR clauses, which are incorporated in this contract by reference, to implement provisions of law or executive orders applicable to acquisitions of commercial items:
 - (1) 52.222-3, Convict Labor (E.O. 11755); and
 - (2) 52.233-3, Protest after Award (31 U.S.C 3553).
- (b) The Contractor shall comply with the (following, checked) FAR clauses in this paragraph (b) which the contracting officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items or components:
- _X__(1) 52.203-6, Restrictions on Subcontractor Sales to the Government, with Alternate I (41 U.S.C. 253g and 10 U.S.C. 2402).
- ____(2) 52.219-3, Notice of Total HUBZone Small Business Set-Aside (Jan 1999).
- _X__(3) 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (Jan 1999) (if the offeror elects to waive the preference, it shall so indicate in its offer)
- ____(4) (i) 52.219-5, Very Small Business Set-Aside (Pub. L. 103-403, section 304, Small Business Reauthorization and Amendments Act of 1994).
 - (ii) Alternate I to 52.219-5.
- ____ (iii) Alternate II to 52.219-5.
- _X__(5) 52.219-8, Utilization of Small Business Concerns (15 U.S.C. 637 (d)(2) and (3)).
- _X__(6) 52.219-9, Small Business Subcontracting Plan (15 U.S.C. 637(d)(4))
 - ____(7) 52.219-14, Limitations on Subcontracting (15 U.S.C. 637(a)(14)).
- ____(8) (i) 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323) (if the offeror elects to waive the adjustment, it shall so indicate in its offer).
- ____ (ii)_Alternate I of 52.219-23.
- ____(9) 52.219-25, Small Disadvantaged Business Participation Program--Disadvantaged Status and Reporting (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).
- ___(10) 52.219-26, Small Disadvantaged Business Participation Program--Incentive Subcontracting (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).
- _X_(11) 52.222-21, Prohibition of Segregated Facilities (Feb 1999)
- _X_(12) 52.222-26, Equal Opportunity (E.O. 11246)
- _X_(13) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (38 U.S.C. 4212).
- _X_(14) 52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793).
- _X_(15) 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (38 U.S.C. 4212).
- $_{\rm X}_{\rm L}$ (16) 52.222-19, Child Labor--Cooperation with Authorities and Remedies (E.O.13126).
- ____(17) (i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (42 U.S.C. 6962(c)(3)(A)(ii). (ii) Alternate I of 52.223-9 (42 U.S.C. 6962(i)(2)(C)).
- __(18) 52.225-1, Buy American Act-Balance of Payments Program-Supplies (41 U.S.C. 10a-10d).
- (19)(i) 52.225-3, Buy American Act--North American Free Trade Agreement--Israeli Trade Act--Balance of Payments Program (41U.S.C. 10a-10d, 19 U.S.C. 3301 note, 19 U.S.C. 2112 note)
 - _ (ii) Alternate I of 52.225-3.
- ____ (iii) Alternate II of 52.225-3.
- __(20) 52.225-5, Trade Agreements (19 U.S.C. 2501, et seq., 19 U.S.C. 3301 note).
- _X_(21) 52.225-13, Restriction on Certain Foreign Purchases (E.O. 12722, 12724, 13059, 13067, 13121, and 13129).
- ___(22) 52.225-15, Sanctioned European Union Country End Products (E.O. 12849).
- ___(23) 52.225-16, Sanctioned European Union Country Services (E.O. 12849).
- _X_(24) 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration (31 U.S.C. 3332).
- ___(25) 52.232-34, Payment by Electronic Funds Transfer--Other than Central Contractor Regisration (31 U.S.C. 3332).
- ___(26) 52.232-36, Payment by Third Party (31 U.S.C. 3332).
- ___(27) 52.239-1, Privacy or Security Safeguards (5 U.S.C. 552a).
- ___(28) (i) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (46 U.S.C. 1241).
 - (ii) Alternate I of 52.247-64.
- (c) The Contractor shall comply with the (following, checked) FAR clauses in this paragraph (c), applicable to commercial services,

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which the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

- ____(1) 52.222-41, Service Contract Act of 1965, As Amended (41 U.S.C. 351, et seq.).
- ____(2) 52.222-42, Statement of Equivalent Rates for Federal Hires (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).
- ____(3) 52.222-43, Fair Labor Standards Act and Service Contract Act--Price Adjustment (Multiple Year and Option Contracts) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).
- ____(4) 52.222-44, Fair Labor Standards Act and Service Contract Act--Price Adjustment (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).
- ____(5) 52.222-47, SCA Minimum Wages and Fringe Benefits Applicable to Successor Contract Pursuant to Predecessor Contractor Collective Bargaining Agreement (CBA) (41 U.S.C. 351, et seq.).
- (d) Comptroller General Examination of Record. The Contractor agrees to comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records--Negotiation.
- (1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.
- (2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.
- (3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.
- (e) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c) or (d) of this clause, the Contractor is not required to include any FAR clause, other than those listed below (and as may be required by an addenda to this paragraph to establish the reasonableness of prices under Part 15), in a subcontract for commercial items or commercial components—
 - (1) 52.222-26, Equal Opportunity (E.O. 11246);
 - (2) 52.222-35, Equal Opportunity for Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (38 U.S.C. 4212);
 - (3) 52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793);
- (4) 52.247-64, Preference for Privately-Owned U.S. Flag Commercial Vessels (46 U.S.C. 1241) (flow down not required for subcontracts awarded beginning May 1, 1996); and
 - (5) 52.222-41, Service Contract Act of 1965, As Amended (41 U.S.C. 351, et seq.).

(End of clause)

I-3 CHANGED 252.212-7001

CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS APPLICABLE TO DEFENSE ACQUISITIONS OF COMMERCIAL ITEMS

DEC/2002

(a) The Contractor agrees to comply with the following Federal Acquisition Regulation (FAR) clause which, if checked, is included in this contract by reference to implement a provision of law applicable to acquisitions of commercial items or components.

() 52.203-3 Gratuities (APR 1984) (10 U.S.C. 2207)

- () 32.203 3 GIACUTCIES (AFR 1904) (10 0.5.C. 2207)
- (b) The Contractor agrees to comply with any clause that is checked on the following list of DFARS clauses which, if checked, is included in this contract by reference to implement provisions of law of Executive orders applicable to acquisitions of commercial items or components.
- X___252.205-7000 Provision of Information to Cooperative Agreement Holders (10 U.S.C. 2416).
- _____252.206-7000 Domestic Source Restriction (10 U.S.C. 2304).
- _X___252.219-7003 Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (DoD Contracts) (15 U.S.C. 637).
 - 252.219-7004 Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (Test Program) (15 U.S.C. 637 note).
- _X___252.225-7001 Buy American Act and Balance of Payments Program (41 U.S.C. 10a-10d, E.O. 10582).
- $_{\rm X}$ ____252.225-7012 Preference for Certain Domestic Commodities.

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_X	_252.225-7014	Preference for Domestic Specialty Metals (10 U.S.C. 2533a).
	_252.225-7015	Preference for Domestic Hand or Measuring Tools (10 U.S.C. 2533a).
_X	_252.225-7016	Restriction on Acquisition of Ball and Roller Bearings (Section 8064 of Pub.L. 106-259). (Alternate I)
_x	252.225-7021	Trade Agreements (19 U.S.C. 2501-2518 and 19 U.S.C. 3301 note).
	_252.225-7028	Exclusionary Policies and Practices of Foreign Governments (22 U.S.C. 2755).
	_252.225-7029	Preference for United States or Canadian Air Circuit Breakers (10 U.S.C.2534(a)(3)).
	_252.225-7036	Buy American ActNorth American Free Trade Agreement Implementation ActBalance of Payments Program (Alternate I)(41 U.S.C. 10a-10d and 19 U.S.C. 3301 note).
_x	_252.227-7015	Technical DataCommercial Items (10 U.S.C. 2320).
_x	_252.227-7037	Validation of Restrictive Markings on Technical Data (10 U.S.C. 2321).
_X	_252.243-7002	Requests for Equitable Adjustment (10 U.S.C. 2410).
	252.247-7023	Transportation of Supplies by Sea (10U.S.C. 2631) (Alternate I) (Alternate II)
	_252.247-7024	Notification of Transportation of Supplies by Sea (10 U.S.C. 2631).
Exec	utive Orders	to the clauses listed in paragraph (e) of the Contract Terms and Conditions Required to Implement Statutes or Commercial Items clause (FAR 52.212-5) of this contract, the Contractor shall include the terms of the following able, in subcontracts for commercial items or commercial components, awarded at any tier under this contract:
	252.225-7014	Preference for Domestic Specialty Metals, Alternate I (10 U.S.C. 2533a).

(End of clause)

I-4 ADDED 252.225-7020

TRADE AGREEMENTS CERTIFICATE

252.247-7024 Notification of Transportation of Supplies by Sea (10 U.S.C. 2631).

252.247-7023 Transportation of Supplies by Sea (10 U.S.C. 2631)

MAR/1998

- (a) Definitions. "Caribbean Basin country end product," "designated country end product," "NAFTA country end product," "nondesignated country end product," "qualifying country end product," and "U.S. made end product" have the meanings given in the Trade Agreements clause of this solicitation.
- (b) Evaluation. Offers will be evaluated in accordance with the policies and procedures of Part 225 of the Defense Federal Acquisition Regulation Supplement. Offers of foreign end products that are not U.S. made, qualifying country, designated country, Caribbean Basin country, or NAFTA country end products will not be considered for award, unless the Contracting Officer determines that there are not offers of such end products; or the offers of such end products are insufficient to fulfill the requirements; or a national interest exception to the Trade Agreements Act is granted.
 - (c) Certifications.
- (1) The offeror certifies that each end product to be delivered under this contract, except those listed in paragraph (c)(2) of this provision, is a U.S. made, qualifying country, designated country, Caribbean Basin country, or NAFTA country end product.
 - (2) The following supplies are other nondesignated country end products:

(insert line item number)

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(insert country of origin)

[End of Clause]

I-5 DELETED 52.211-4019 SOURCES OF SUPPLY FOR TIRES ON TACTICAL WHEELED VEHICLES - ALTERNATE APR/2000 (TACOM)

34 ADDITIONAL REQUIREMENTS

M872A4 SEMITRAILER DESCRIPTION/SPECIFICATION INDEX

CLAUSE	CDRL	CLAUSE TITLE
C.1	NA	Vehicle Description
C.2	NA	General Requirements
C.3	A001	Engineering Change Proposal (ECP) - Contractor Requested
C.4	NA	Engineering Drawings and Drawing Government Directed
C.5	A002	Special Packaging Instructions
C.6	NA	Safety Engineering
C.7	A003	Safety Assessment Report (SAR)
C.8	NA	Environmental Engineering
C.9	NA	Vehicle System Kits
C.10	NA	Integrated Logistics Support (ILS) Program
C.11	A004 (SAS) Maintenan	Logistics Management Information LMI) Summaries/Supportability Analysis Summaries ce Planning/Repair Analysis, (Maintenance Analysis)
C.12	A005	Logistics Management Information LMI) Maintenance Allocation Chart (MAC)
C.13	A006	Logistics Management Information Summaries/System Support Package (SSP)
C.14	NA	Provisioning Program
C.15	A007 List (PPL)	Logistics Management Information (LMI) Data Products/Provisioning Provisioning Parts
C.15	A008	LMI Summaries
C.15(b)		LMI Data Products Pre-procurement Screening
C.16	A009 Documentation (Logistics Management Information Data products/Supplementary Provisioning Technical SPTD) Drawings)
C.17	A010	Special Equipment Tools and Test Equipment List/Tools and Test Equipment List (TTEL)
C.18	A011	Logistics Management Information Summaries/Design Change Notice (DCN)
C.19	A012	Provisioning Parts List Index (PPLI)
C.20	NA	Next Higher Assembly PLISNs and Overhaul Quantities
C.21	NA	Contractor On-line Access

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C.22	NA Manual (ETM)	Publications Program/Technical Manuals A013 -Technical Manuals/Electronic Technical
C.23	NA	Technical Manual Validation
C.24	A014	Commercial Off the Shelf Manuals COTS)/Interim Commercial Technical Manuals
C.25	NA	Contractor Technical Assistance A015 - Contract Field Service Report
C.26	NA	Quality Program
C.27	NA	In-Process Inspection
C.28	NA	Inspection Equipment
C.29	NA	Inspection Records
C.30	NA	Drawing for Inspection
C.31	NA	Shakedown Test
C.32	NA	First Production Vehicle Inspection (FPVI)
C.33	NA	Vehicle Restoration
C.34	A016	Failure Analysis and Corrective Action Report (FACAR)
C.35	NA	Welding Requirements
C.36	NA	Counterfeit Parts
C.37	NA	Start of Work (SOW) Meeting
C.38	NA	Maintenance, Provisioning and Publication (MPP) Reviews
C.39	NA	Formal Program Status Reviews
C.40	A017	Conference Agenda
C.41	A018	Conference Minutes
C.42	N/A	Equipment Control Record, DA Form 2408-9
C.43	A019	Logistics Management Information Summaries/Warranty Performance Report
C.44	A020	Transportability Report
C.45	A021	Air Transportability Report
C.45	N/A	Independent Testing of Bulkhead

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DESCRIPTION/SPECIFICATION

VEHICLES AND REQUIREMENTS

C.1 <u>Vehicle Description</u>

The M872A4 Semitrailer is a dual purpose, break bulk/container transporter, 34-ton, flatbed. The prime mover is M915 Series truck tractor. The M872A4 is equipped with an anti-lock braking system with PLC4, radial tires, 12/24 volt electrical receptacles, LED lighting, hub odometer, removable bulk head, and a huck bolt on bolster plate.

C.2 General Requirements

a. The contractor shall deliver vehicles in accordance with the following:

<u>Vehicle Model</u> TACOM Purchase <u>Quantity</u>

Description

M872A4 Semitrailer ATPD No. 2332 3 PVT

dated 7 Feb 2003 1 FPVI

1 Shakedown

- b. The contractor shall produce and deliver in accordance with the delivery schedule and the corresponding data requirements set forth in the Contract Data Requirements List (CDRL) DD form 1423, Attachment 002. The Army Purchase Description (ATPD 2332), Attachment 001 of this contract shall apply to all M872A4 Semitrailers manufactured by the contractor. Attachment 003, Vehicle Data Sheet shall apply to paragraph C.45 of this DESCRIPTION/SPECIFICATION. Attachment 004, LMI Data shall apply to paragraph C.38 of this DESCRIPTION/SPECIFICATION.
- c. The contractor shall prepare the data item submittals as described in the Data Item Descriptions and the Contract Data Requirements Lists. The following references are shown after the title of the clause for each data item when applicable:
 - (1) Data Item Description (DID) number from Attachment 002 Contract Data Requirements List (CDRL)
 - (2) Contract Line Item Number (CLIN)
 - (3) Exhibit Line Item Number (ELIN) and the Contract Data Requirements List (CDRL)
- d. Data Items shall be submitted in a mutually selected electronic format and software version. Any one of the following forms may be used.
- (1) The government will establish a M872A4 unique portal in Army Knowledge Online (AKO). AKO is a world-wide web accessible system with capabilities for controlling levels of access. The government will sponsor contractor access to the M872A4 portal to allow exchange of data files between designated government personnel and the contractor.
 - (2) E-Mail.
 - (3) The contractor may establish a world wide web site and allow certain government representatives access to it.
 - (4) The contractor may mail Disks, CD ROM, or any other mutually accepted electronic media.

CONFIGURATION MANAGEMENT AND DRAWINGS

C.3 Engineering Change Proposal (ECP) - Changes Against Level 2 Drawings - Contractor Requested (DI-CMAN-80639C - CDRL A001)

- a. Requirement for Submittal. After the government provides Production Configuration approval based on the completion of PVT, the contractor shall submit an Engineering Change Proposal for any configuration change to the approved baseline for the M872A4 Semitrailer which impact form, fit, or function. However, this also includes changes required to correct deficiencies discovered during the Production Verification Test (PVT) and subsequent changes identified after production start to the end of production.
- b. Government Review and Approval The government's approval does not constitute final acceptance of the change. The government may require the contractor to perform additional tests to verify acceptability of any changes the contractor proposes and the government has approved. The government will determine the extent of testing up to and including a complete First Article Test (FAT).

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The government may require additional Environmental Stress Screening (ESS) testing. The contractor will perform the tests at no additional cost to the government. The government will disapprove changes that will have an unacceptable adverse effect on performance, reliability, maintainability or repair. The Procuring Contracting Officer will notify the contractor of the government's approval of the changes and issue a modification to the contract to incorporate them.

c. Responsibility for Failure Due to Changes The government's approval of the contractor's changes does not relieve the contractor from its responsibility to furnish all items in conformance with the contract performance requirements. The contractor shall accept full responsibility for any failure in the operation of the equipment that renders the vehicle Not Operational Ready as a result of changes the government approves.

d. Responsibility for Cost of Changes

- (1) The government shall not be responsible for additional costs to the vehicles, testing or software associated with any changes the contractor submits and the government approves.
- (2) When a change results in reduced costs to the contractor, the government may obtain an equitable reduction in contract price. The contractor must certify cost impacts and the government may conduct post-changes approval audits.
- (3) The government will reduce the contract amount for costs the government incurs due to the contractor's failure to inform us of the changes in a timely manner. These costs include, but are not limited to, replacement costs of obsolete parts and costs for technical manual changes.
- (4) The government will not be liable for any cost the contractor incurs, due to delay in contract performance, as a result of any of the contractor requests for change.

e. Class II Engineering Changes

(1) The contractor shall submit Class II changes to the Administrative Contracting Officer within 5 days of determining the need for a change. The government will review these changes and the Administrative Contracting Officer will notify the contractor of the government's concurrence or non-concurrence of the proposed classification.

f. Class I Engineering Changes:

(1) The contractor shall submit their Engineering Change Proposal immediately upon determining the need for the change. The Engineering Change Proposal package must include sufficient information to allow the government to clearly understand the proposed change impact on the configuration item. Each ECP submittal shall include an impact statement addressing all Integrated Logistics Support, MANPRINT, and transportability requirements.

C.4. <u>Engineering Change Proposal (ECP) - Changes Against Level 2 Drawings - Government Directed</u> (DI-CMAN-80639C - CDRL A001)

If the government wants to change the vehicle configuration, the Procuring Contracting Officer will notify you by a request for technical and price proposal which the contractor shall furnish at no cost. The contractor shall submit an Engineering Change Proposal that includes sufficient information for the government review of Data Delivery Description (DDD)requirements. The contractor's ECP submittal shall include an impact statement addressing all Integrated Logistics Support, MANPRINT, and transportability requirements together with certified cost and pricing data.

C.5 <u>Special Packaging Instructions</u> (DI-PACK-80121B - CDRL A002)

- a. The contractor shall provide initial requirements and updates to the M872A4 Semitrailer Shipment & Storage (S&S) instructions.
 - b. Vehicles will be shipped in a drive-on, drive-off configuration, unless otherwise specified.
- c. All M872A4 Semitrailers are subject to requirements of Code of Federal Regulation Title 49, for truck and rail transport, International Maritime Dangerous Goods Code, for vessel transport, and AFJMAN 24-204, for Military air. The contractor shall include disassembly procedures to meet requirements for the applicable mode. Overseas shipments require some disassembly to minimize shipped tons costs. Instructions shall reflect all special requirements.
- d. The contractor shall include packaging instructions for the Basic Issue Items (BII) and Components Of the End Item (COEI). The BII shall be packed separately from the COEI. These items shall be placed into an acceptable wood container in accordance with Table C.II of MIL-STD-2073-1C.
 - e. The contractor shall include figures showing the stowage location and security provisions for the BII and COEI. The

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stowage method and locations shall deter pilferage and shall not interfere with lifting, tie down or other transportation handling requirements.

- f. The contractor shall provide revisions to the S&S Instructions for each design change affecting the vehicle's shipping configuration, weight, or transportability. The contractor shall also provide revisions to the S&S Instructions for each logistics change affecting packaging instructions for BII or COEI. When specified, the contractor shall update S&S Instructions to support improvements in vehicle processing methodology.
- g. The contractor shall validate S&S Instructions. Validation for S&S Instructions shall verify the adequacy of the preservation, packaging, packing and stowage of BII/COEI, the preservation procedures for shipment and storage, and the exercising requirements for vehicles in long term storage. A government representative will verify and witness the contractor's validation.

SAFETY AND ENVIRONMENTAL

- C.6 <u>Safety Engineering</u> The contractor shall consider and implement safety engineering principles in the system design. System design and operational procedures that the contractor shall consider includes, but is not limited to the following:
- a. Identifying hazards associated with the system by conducting safety analyses and hazard evaluations. Analysis shall include both operational and maintenance aspects of the vehicle along with potential interface problems with planned subsystems.
 - b. Eliminating or reducing significant hazards by appropriate design or material selection.
 - c. Controlling or minimizing hazards to personnel which cannot be avoided or eliminated.
- d. Locating equipment components and controls so that access to them by personnel during operation, maintenance or adjustments shall not require exposure to hazards. Examples of hazards to be considered include: high temperatures, chemical burns, electrical shock, cutting edges, or sharp points. All moving parts and pneumatic components which are of such a nature or so located as to be a hazard to operating or maintenance personnel shall either be enclosed or guarded. Protective devices shall not impair operational functions.
- C.7 <u>Safety Assessment Report (SAR)</u> (DI-SAFT-80102A - CDRL A003)
- a. As a result of the safety analyses, hazard evaluations, and any independent contractor testing, the contractor shall perform and document a safety assessment. The safety assessment shall identify all safety features of the hardware, software, system design as well as any inherent hazards. The assessment will also outline any operations and maintenance procedures needed by the test agencies and the system user.
- b. In the event the system is modified or procedural changes made after the final SAR is submitted, The contractor shall update the SAR to reflect those modifications or changes.
- C.8 <u>Environmental Engineering</u> The contractor shall use non-hazardous materials to the maximum extent practicable in the manufacture the M872A4 Semitrailer and shall ensure that all materials used support the intended use of the vehicles are non-hazardous. All materials and coatings used to enhance the performance of the vehicles should be non-hazardous and degrade over time, or should not have any negative effect on the environment after disposal.

KITS AND SUPPORT DATA

C.9 <u>Vehicle System Kits</u>

(CLINS 0003, 0004, 0005, 0006, 0007, 0008)

- a. The contractor shall provide one each of the following kits to Yuma Proving Grounds:
 - (1) M872A4 Side Racks Kit
 - (2) M872A4 Tarpaulin Kit
- b. <u>Provisioning of kits</u> The contractor shall provision all kits specified above in accordance with provisions in Sections C.15 and C.16.
- c. Production semitrailers may be equipped with or without kits, depending upon the Government's requirements. Quantities the government may require will be specified at the time of Delivery Order issuance in accordance with the appropriate CLIN(s). No more than one type of each kit ordered shall be shipped with a semitrailer. The kits shall be secured as described for COEI in paragraph C.5.
 - d. The contractor shall be responsible for shipping the Vehicle System Kit (CLIN 0003) from the test site to the

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contractor's facility for repair and reconditioning/restoration to a like new condition or replacement.

INTEGRATED LOGISTICS SUPPORT (ILS)

C.10 <u>Integrated Logistics Support (ILS) Program</u>

- a. The ILS program described in the following paragraphs sets forth the contractor's work efforts required to develop, test, produce and deliver the logistics requirements to support the M872A4 Semitrailer. All guidance material referenced throughout this scope of work and CDRLs may be obtained upon request of the ACO.
- b. The contractor is responsible for planning, managing and ensuring ILS considerations are an integral part of the overall system. The contractor shall provide logistic management support that includes: Logistics Documentation, Program Configuration, Quality Management, Testing, Integrated Logistics Support, Maintenance Planning Analysis, Supply Support, Provisioning, Technical Publications, Support of Test Equipment and Operations and Maintenance Training.
- C.11 Logistics Management Information Summaries/Supportability Analysis Summaries (SAS), Maintenance Planning/Repair Analysis and
 Maintenance Analysis

(DI-ALSS-81529 - CDRL A004) For guidance see LSA Task Analysis and LSA Task 401.

- a. The contractor shall conduct maintenance analysis on the vehicles, assemblies, sub-assemblies, spare parts, kits and identify the tools to define optimal maintenance activities that fully support the M872A4 Semitrailer maintenance concept. This analysis shall be the basis for the development of Technical Manuals, Preventive Maintenance Checks and Services (PMCS), Maintenance Allocation Chart (MAC), Lubrication Instructions and Repair Parts and Special Tools List (RPSTL).
- b. The contractor shall brief the maintenance analysis procedures and strategy they intend to employ at the Maintenance, Provisioning and Publications (MPP) Review guidance conference. This meeting will be conducted in conjunction with the ILS SOW Meeting. Updates to any analysis procedures and strategy shall be briefed at each subsequent MPP and Program Review(s).
- C.12 <u>Maintenance Allocation Chart (MAC)</u>

(DI-ALSS-81529- CDRL A005) Use of LSA 004, 020 and 030 Reports are acceptable for all items during MPP reviews.

The Maintenance Allocation Chart and the Tools and Test Equipment Requirements shall be employed to satisfy automated MAC delivery requirements.

- C.13 <u>Logistics Management Information Summaries/System Support Package(SSP)</u>
 (DI-ALSS-81529 CDRL A006) For guidance see DI-ILSS-80532.
- a. The System Support Package is a prepositioned composite package of support resources that is used for test site support at Yuma Proving Ground (YPG), AZ and technical manual verification, when specified by paragraph C.23. All items that comprise an SSP shall be the same configuration and source used on the production vehicles.
- b. The contractor shall prepare and provide an SSP List, which lists all system support requirements for each test or technical manual verification/LOGDEMO site in support of the M872A4 Semitrailer.
- c. The contractor shall assemble, furnish, pack and ship the SSP to the designated site(s). The SSP and SSP list shall consist of, as a minimum, the following:
- (1) <u>Spare parts</u> All SSPs shall contain a sufficient amount of repair parts to meet the requirements arising from predicted failures, scheduled maintenance, mandatory replacement items and items that are most likely to be consumed or broken during any disassembly or assembly process (such as seals and gaskets) as a result of anticipated wear out to support the test requirements.
- (2) Common and Special Tools, Test Measurement and Diagnostic Equipment (TMDE) The SSP list shall include all common and special tools, tool kits, equipment and TMDE identified in the Army Supply Catalogs required in support of the M872A4 Semitrailer. These items shall be identified but need not be physically present in the SSP. Any tool or TMDE required to perform maintenance and any diagnostic maintenance procedures, to include any vendor or manufacturer software programs and/or hardware, that are not identified in the Army Supply Catalogs shall be identified on the SSP List and be physically present in the SSP. All tools & TMDE not listed in the Army Supply Catalogs shall be identified as Special Tools.
- (3) Equipment Publications The most recent Commercial Equipment Publications IAW C.24 shall be identified on the SSP list and be included in the SSP provided to all test or Technical Manual (TM) Verification sites. When changes and updates are made to any publication during testing or TM Verification/LOGDEMO, the contractor shall provide them to TACOM, AMSTA-LC-CHHM, for approval and forwarding to the appropriate site(s).
 - (4) Basic Issue Items (BII) and Components of the End Item (COEI) BII as required by the specification and BII/COEI as

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required by the contractor's design shall be identified on the SSP list as well as included in the SSP.

- (5) <u>Expendables Supplies</u> Expendable supplies such as oils and lubricants shall be identified on the SSP list. Only unique products, not military standard, shall be included in the SSP.
- (6) Anti-lock Braking System (ABS) Diagnostic Kit The contractor shall provide one diagnostic kit (if applicable), complete with DOS or Windows 95 compatible software and necessary hardware to retrieve data applicable to electronically controlled subsystems which feature diagnostic fault codes or data storage. Circuit and connector technology shall be provided in accordance with the vehicle's Purchase Description (Attachment 001). The vehicle connectors shall be compatible with the latest standard Army laptop computer-based test equipment.

C.14 Provisioning Program

- a. The provisioning program for the M872A4 Semitrailer requires the contractor to develop and maintain a data base that will provide the government with data IAW Attachment 004, Logistic Management Information (LMI) Data Product Delivery. The provisioning program creates the Provisioning Master Record (PMR) which is stored on the government data base. It contains all data for the assemblies, sub-assemblies, spare parts and kits to include Components of the End Item (COEI), Basic Issue Items (BII), Additional Authorized Items (AAL) and Special Tools required to support the M872A4 Semitrailer. A drawing shall support each new item being provisioned.
- b. <u>Provisioning Contract Control Numbers (PCCN)</u> The PCCNs for the M872A4 Semitrailer is C885AA. Each vehicle variant is assigned its own unique Provisioning Control Code (PCC)/Use on Code (UOC) is 2A4.
 - If the government determines that additional PCC/UICs are required, they will be provided.
- c. <u>Provisioning Schedule and Reviews</u> The contractor shall provide a provisioning performance schedule at the Start of Work meeting IAW Attachment 004, Provisioning Requirements Statement. This schedule shall provide an estimate of the number of items to be provisioned and the number of conferences that will be required. The maximum number of items at any 40 hour Maintenance, Provisioning and Publications (MPP) Review shall be 1500 line items.
- d. The government's acceptance of provisioning data delivered under the provisions of this contract will be based upon the guidance contained in the Quality Assurance Provisioning Guidance Book (QAPG). The QAPG book will be provided upon request.
- C.15 <u>Logistics Management Information (LMI) Data Products/Provisioning Parts List (PPL)</u>
 (DI- ALSS-81529, Attachment E CDRL A007) For guidance see MIL-STD-1388-2B, LSA-036 summary)
- a. The contractor shall maintain provisioning data for M872A4 Semitrailer using the PCCN of C885AA in the Provisioning Master Record (PMR). After the M872A4 Semitrailer PMR is established, The contractor shall add or change data to include the most recent production configurations, Engineering Change Proposals (ECPs) and parts information changes. The contractor shall prepare and deliver a LMI data product. The contractor may use PPL-LSA-036 Report format for all items during MPP reviews.
 - b. <u>Logistics Management Information Summaries/Pre-Procurement Screening</u> (DI-ALSS-81529, CDRL A008) For guidance see DI-V-7016F.

The contractor shall conduct pre-procurement screening for all items to be provisioned. Drawings are not required for items accompanied by a copy of pre-procurement screening which indicates the item has a valid National Stock Number (NSN).

- c. The contractor shall have at each MPP Review the following:
 - (1) Two hard copies of the contractor's LMI Data Product. LSA-036 Summary (PPL) format are acceptable.
 - (2) One drawing for each part listed on the LMI Data Product Report that does not have an NSN.
 - (3) A copy of the contractor's Pre-Procurement screening
- d. The contractor shall insure that all submitted LMI Data Products are compatible with our Commodity Command Standard System (CCSS)/Provisioning On Line System (POLS), ADSM-18-LEA-JBE-ZZZ-UM-06. The data shall be capable of being loaded into our PMR without any modification to the data. As necessary, the government will discuss the various methods the contractor can use to deliver provisioning data.
- e. The contractor shall correct rejects within 30 days after the government notifies the contractor of noted problems. The corrections shall be made by either:
 - (1) Magnetic tape/disc with accompanying LMI Data, (LSA 036 Report acceptable)

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(2) By Modem access to the Provisioning On-Line System (POLS) (This access will be at the Contractors expense).

If submitted by option 1. above the data shall be IAW Attachment 004, Media Format Delivery for all LMI Data Products. If the contractor chooses modem access to the Provisioning On-Line System (POLS) this access will be at the contractor's expense. See para. C.21 for more information on On-Line Access.

- f. The contractor shall maintain and continuously update the contractor's Data File with the Provisioning Technical Documentation (PTD) Reports (X40CXX6034R) which the government will provide periodically. These reports will contain Part Number Changes, Failure Factor changes, Source/Maintenance/Recoverability Code, changes and additions and/or deletions throughout the contract.
- C.16 Logistics Management Information Products/Supplementary Provisioning Technical Documentation (SPTD)/Drawings
 (DI-ALSS-81529 CDRL A009) For guidance see Supplementary Provisioning Technical Documentation (SPTD) DI-V-7000A.
- a. The contractor shall have available at each MPP Review one hard copy SPTD/drawing for each item on the PPL for the Government's review. These drawings shall include a parts list, detail and assembly drawings, interface control data, diagrams, performance characteristics and details of material for each Assembly, Sub-Assembly and Spare Part on the M872A4 Semitrailer.
 - (1) The drawings shall be in Provisioning List Item Sequence Number (PLISN) sequence.
- (2) After the government approves each drawing as being suitable for NSN assignment, the drawings shall be submitted on a CD in Adobe Acrobat.pdf file, or some other software product format that the government agrees to, 30 days after completion of each MPP Review.
 - (3) Text on all drawings shall be in the English Language.
- (4) The contractor shall have all approved vendor Commercial and Government Entity (CAGE) Code typed, stamped or written legibly with an authorized signature and date cited on all drawings.
- (5) Substitutes for drawings, such as commercial catalogs or catalog descriptions, sketches or photographs with brief descriptions or dimensions, material, mechanical, electrical or other descriptive characteristics, do not apply. The contractor's use of such drawing substitutes is permitted only by exception, on a case by case basis, by the responsible Provisioning or Defense Logistics Information Service (DLIS) representative.
- C.17 <u>Special Equipment Tools and Test Equipment List (TTEL)</u>
 (DI-ILSS-80868(T) CDRL A010) For guidance see DI-V-7007A.

The contractor shall prepare and deliver a TTEL listing those peculiar support items for the M872A4 Semitrailer that are not currently listed in the U.S. Army Supply Catalogs. A list of Supply Catalogs can be found in DA Pamphlet 25-30, Sec. 6. The TTEL List, with drawings shall be identified at the first MPP Review. After the government approves the contractor's TTEL, The contractor shall deliver the data concurrently with the first submittal of the LMI Data Product. Updates shall be provided with each subsequent delivery of the LMI Data Products. The contractor may use PPL LSA-036 summary format for all items during MPP reviews.

C.18 <u>Logistics Management Information Summaries/Design Change Notice (DCN)</u>
(DI-ALSS-81529 - CDRL A011) For guidance see DI-V-7009A.

The contractor shall submit a DCN for those design or part number changes which modify, add, delete or supersede any of the operating, maintenance or repair parts information that the contractor provided previously under this contract.

C.19 Logistics Management Information Summaries/Provisioning Parts List Index (PPLI)
(DI-ALSS-81529 - CDRL A012) For quidance see DI-V-7193.

The contractor shall provide a PPLI containing a listing by manufacturer's reference numbers of all items listed in the LMI Data Products, cross-referenced to each PLISN. The contractor may use LSA-151 Report format during MPP reviews.

- C.20 Next Higher Assembly PLISNs and Overhaul Quantities
- a. Next higher assembly (NHA) PLISNs and overhaul quantities (OVHL QTY) are used to identify and forecast repair parts requirements for all assemblies/subassemblies/components. OVHL QTY is the estimated number needed to support overhaul of 100 NHA.
- b. The contractor shall enter with each LMI Data Product the NHA Genesis. The contractor shall identify, as a minimum the immediate NHA PLISN (Hardware), the NHA of the "XC" (LCN identification) and the End Item PLISN with the proper Indicator Code and overhaul quantities for each item identified as a NHA having a Source Code of "P". For non-"P" coded items only the NHA and Indicator Codes are required.

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- a. The contractor may access the Provisioning On-line System (POLS) to make Provisioning Suspense File (PSF) corrections as an alternate to receiving validation reject reports from the government and making the corrections on a subsequent submittal by Magnetic tape/disc. The government shall provide Password and instructions for access by modem to the Provisioning On-Line System (POLS), if requested. (Any costs for modem access to the Provisioning On-Line System (POLS) will be at the contractor's expense)
 - b. Additional access may be provided for ease of processing LMI data.
 - c. As necessary, The government will discuss the procedures used to access POLS.

C.22 Publications Program

- a. The publications program requires the contractor to provide a Technical Manual in Electronic Technical Manual (ETM) format. The Start Of Work Meeting and the MPP Reviews are used as forums to clarify any issues the contractor may have on the publication requirements under this contract. The contractor shall have a publications program which creates the required manuals that reflects all operating, maintenance procedures and repair parts required for the M872A4 Semitrailer. The TM code and TM series number will be provided at the Logistics Start of Work.
- b. Preventive Maintenance Checks and Services (PMCS) The contractor shall review and establish PMCS in support of the TM 9-2330-359-14&P Technical Manual. The individual PMCS for the crew/operator and unit maintenance personnel shall be delivered as specified in the technical manual sections of this contract IAW MIL-STD-40051A and is subject to the Government's approval. Initial submission of PMCS may be in the form of the contractor's selection, with supporting artwork. Only approved PMCS shall be submitted. The current M872 Semitrailer from TM 9-2330-359-14&P PMCS will be provided to the contractor for the contractor's use as a baseline at the Start of Work.
- c. Levels of maintenance shall be separated into individual sections. Initial set up sections and pages shall be added for each maintenance task that includes the following minimum data:
 - (1) Equipment conditions
 - (2) Materiel and parts
 - (3) Special tools and TMDE
 - (4) Technical manual references
 - (5) Follow-on tasks
 - d. Technical Manual to be provided under this program is:
- (1) Technical Manuals/Electronic Technical Manual (ETM) Operator/Unit/Direct/General Support Maintenance Manual that includes a Repair Parts and Special Tools List (RPSTL) TM9-2330-359-14&P (MIL-STD-40051A - CDRL A013)
- (a) The contractor shall develop and deliver an ETM for the Operator's/Unit/Direct/General Support, TM 9-2330-359-14&P for the M872A4 Semitrailer. It shall include operation, and Unit, Direct and General Support maintenance and Repair Parts and Special Tools List (RPSTL). This ETM shall be developed and delivered as an "intelligent" linkable .pdf file. The contractor shall deliver all word processing files, i.e. MS Word for Windows or equivalent as well as CGM or TIFF illustration files used to generate the manual.
- (b) The contractor is required to validate the accuracy and usability of all publication deliverables. The contractor shall have and use documented Quality Assurance (QA) processes and inspections in accordance with ANSI/ISO/ASQC Q9001. The government has the right to review validation records and witness validation processes. The government has the right to verify all publication deliverables. The government's reviews and verification may be done through statistical sampling and a mix of on-screen review and actual performance; but could include actual performance of all procedures and review of all screens, if deemed necessary by the government. The government does not intend to review and verify every screen at every review, but relies on complete, careful editing and review by the contractor. If there are indications that the contractor has performed incomplete or inadequate QA reviews, the government may elect to perform additional reviews and return products for rework.
- (c) The government will provide the contractor with a hard copy of the latest edition of the M872 Semitrailer technical manual at the start of work meeting. This may be used as a baseline for the contractor's development of the new manual for the M872A4 Semitrailer required under this contract.
 - (d) A 3 digit code Technical Manual Designator shall be provided at the SOW meeting.

C. 23 Technical Manual Validation

Validation The contractor shall conduct a data validation for the technical manual being created for the M872A4 Semitrailer.

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- (1) The contractor shall demonstrate the contractor's process and controls to incorporate the new and changed operating and maintenance procedures and repair parts into the existing or new manual. The contractor remains responsible for the quality, adequacy of the data and adequacy of the manual. The government reserves the right to monitor the contractor's technical manual validation on the vehicle beginning six months after contract award.
- (2) The government's acceptance of the manual during the validation process is contingent on the contractor demonstrating that the contractor's quality procedures were implemented and effective. The government reserves the right to conduct a separate verification program, if the technical manual contains errors, which exceed the stated objectives of the contractor's quality program.
- (3) The contractor shall correct all errors the government discovers in the technical manuals during quality reviews at no additional cost to the government.
- (4) The government will not conduct a separate hands-on government verification, which would duplicate the contractor's effort, unless the government decides to verify maintenance procedures unique to the M872A4. If the government decides to conduct a verification, it will be aimed at insuring the contractor's technical manual program procedures and methodology are adequate.

C.24 <u>Commercial Off-the Shelf (COTS) Manuals/Interim Commercial Technical Manuals</u> (DI-TMSS-80527A - CDRL A014)

The government requires Interim Commercial Manuals to support the M872A4 Semitrailer from the start of Production Verification Test to the period when the ETM becomes available. These manuals shall be the contractor's standard manuals provided to the contractor's customers which describe operation and maintenance of the contractor's vehicles. The contractor shall also provide a listing of all spare parts/Bill of Material with art for all items used on the M872A4 Semitrailer.

C.25 <u>Contractor Technical Assistance</u>

(CLINS 0020, 0021, 0022, 0023, 0024)

- a. <u>Field Service Representative (FSR)</u> The contractor shall provide FSRs who are thoroughly experienced and qualified to advise and make recommendations to orient and instruct key government personnel with respect to operation, maintenance, repair and contractor parts supply for the M872A4 Semitrailer and their components.
- b. <u>FSR Personal Data</u> The contractor shall make available personal data related to the FSRs including documentary evidence such as birth certification and such evidence as is requested by the government's installation or area in which services are to be performed. The contractor shall request approval for each FSR and include a statement of qualification for each representative. Our approval shall be limited to granting or denying security clearance for the person(s) named.

c. Man-Days

(CLINS 0020AA, 0020AB, 0021AA, 0021AB, 0022AA, 0022AB, 0023AA, 0023AB, 0024AA, 0024AB)

The contractor shall provide up to 30 man-days of service at the government's discretion to locations in both CONUS and OCONUS, as the government may request. The contractor shall furnish Man-days of service. The government reserves the right to reduce the number of days of services to be furnished to the extent necessary to conform to the Government's requirements and shall be obligated to pay for only actual services used. Each reduction in quantity shall be at the Man-day rate established.

d. Transportation

(CLIN 0020AC, 0021AC, 0022AC, 0023AC, 0024AC)

- (1) The Man-day rate is exclusive of transportation costs. The transportation costs incurred in carrying out the government's orders and directions shall be acceptable transportation costs which the government will reimburse.
- (2) The Man-Day rate shall include local transportation in commuting to a base or job site, whenever such costs have been incurred by the individual as a result of an assignment where the government does not or cannot make available quarters and messing facilities at the installation where the services are being preformed. The contractor shall certify and invoice for the actual mandays/months services preformed and transportation costs incurred. The contractor shall forward these invoices and certifications to the Administrative Contracting Officer for verification of costs and payment. The contractor's invoices shall include travel changes and have attached all receipts for costs which the contractor is seeking reimbursement. The contractor shall assure all transportation of personnel under this provision is accomplished by the most economical means available consistent with providing timely FSR services. The Contracting officer or his authorized representative will notify the contractor at least 10 days in advance of CONUS travel and 20 days in advance of OCONUS travel of the date representative(s) are required. Instructions and established itineraries will be provided as necessary.
 - e. Contract Field Service Report/Field Service Representative (FSR) Reports
 (DI-MGMT-81238(T) CDRL A015)

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Each FSR shall prepare and deliver via e-mail a report within 10 working days following each assignment covering his activities.

- f. Man-day of Service A Man-Day is 8 hours. The representative is to work no more than 8 hours per day, 40 hours per week. A Man-day of service includes any period during which the representative is delayed or prevented from performing any task only if the delay or non-performance is solely the Government's fault. Man-Day(s) of service includes travel time for initial travel from contractor's facility to site of work, for travel between sites of work, and to the contractor's facility. It also includes any time that the FSR is preparing required reports at the work site.
- g. <u>Man-day Cost</u> Any costs incurred by the Field Service Representative (FSR) over and above those as recognized in the Joint Travel Regulation will not be reimbursed.
- h. <u>Saturday/Sunday</u> When work is not performed on a Saturday/Sunday, and the representative is on site, a man-day shall be charged at the Saturday/Sunday man-day per diem rate only.
- i. <u>Holidays</u> The government will pay for official U.S. holidays in addition to the actual days worked. The government is not responsible for vacation and other holidays and sick leave pay. The government is responsible for actual days worked by any qualified contractor representative. It is immaterial whether the same representative completes the assignment. The government shall be responsible for only one complete round-trip transportation and travel costs between sites of work per assignment.

QUALITY, INSPECTION, TEST AND ACCEPTANCE

C.26 Quality Program

- a. The contractor shall implement and maintain a quality system that ensures the functional and physical conformity of all products or services that furnished under this contract. The contractor's quality system shall achieve defect prevention and process control, providing adequate quality controls throughout all areas of contract performance.
- b. The contractor's quality system may be based on international quality standards such as the ISO 9000 series, military, commercial or national quality standards.
- c. At any point during contract performance, The government has the right to review the contractor's quality system to assess its effectiveness in meeting contractual requirements.

C.27 <u>In-Process Inspection</u>

The contractor shall identify and establish in-process inspection points and inspections where the absence of such inspections could adversely affect quality. These inspections shall evaluate the conformance of materials, welding, workmanship and processes to contractual and vehicle Purchase Description (Attachment 001) requirements. The government reserves the right to either witness or conduct its own in-process inspection. All in-process inspections conducted during fabrication shall be made at the contractors or subcontractor's facilities prior to the application of primer or paint.

C.28 <u>Inspection Equipment</u>

The contractor shall be responsible for supplying and maintaining all inspection and test equipment necessary to assure the vehicle system and components conform to contract requirements. All inspection equipment shall be available for use at the start of production. The contractor shall make available to the government applicable and necessary inspection equipment for use during vehicle system inspection. The government will return all inspection equipment upon completion of inspection. The contractor shall apply best commercial practice to maintain the contractor's inspection and test equipment used in the inspection of the vehicle systems.

C.29 <u>Inspection Records</u>

The contractor shall maintain and make available to the government all records of examinations and tests performed on material used to produce each vehicle system. This documentation shall describe deficiencies found during inspection and all corrective action undertaken to correct these deficiencies. These records shall be maintained for a period of four years following completion of the contract.

C.30 <u>Drawings For Inspection</u>

When requested by the Government, the contractor shall provide legible drawings to which each semitrailer was built to. These drawings shall be to the contractor's latest manufacturing revision. After the government completes the production inspections and acceptance, the drawings will be returned to the contractor.

C.31 <u>Shakedown Test</u>

Prior to Production Verification Testing, the contractor shall conduct a Shakedown Test. The contractor shall submit the

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proposed test site and test plan to the government for approval 30 days prior to the start of the test. The test mission profile and mileage for one vehicle with full payload (ISO containers/dummy payload) to be towed by a M915A2, M915A3, M915A4, or a comparably equipped commercial line haul tractor.

Mission Profile (in Miles)
Secondary Road Trail

250

M872A4 Semitrailer

)

- a. <u>Shakedown Test Report</u> The contractor shall prepare a shakedown test report at the completion of the test. The test report shall be in sufficient detail for separate formulation of conclusion by interested parties not witnessing the test/inspection. The contractor shall record deficiencies as informational, minor, major and critical, as will as corrective actions taken or proposed. The final report shall be maintained at the contractor's facility.
- b. Shakedown Test Failure Failure of the Shakedown Test vehicle to meet any contractual requirement, specification requirement, design, welding or workmanship requirement shall be cause for rejection of the Shakedown Test Vehicle. Correction of deficiencies shall be accomplished by the contractor at no cost to the government on all vehicles produced under the contract. In the event of a Shakedown Test failure, the contractor may be required at the government's option, to repeat any or the entire Shakedown Test. Any deficiencies found as a result of the Shakedown Test shall be prima facie evidence that all vehicles are similarly deficient, unless evidence to the contrary is furnished by the contractor and such evidence is acceptable to the Contracting Officer. The contractor shall allow the Government the right to witness any part (including all) of the M872A4 1000 mile Shakedown Test. This includes contractor inspection of the M872A4 Shakedown Test vehicle.

C.32 <u>First Production Vehicle Inspection (FPVI)</u>

The contractor shall perform a First Production Vehicle Inspection using the clauses contained in this contract. At least 30 calendar days prior to submission of the First Production Vehicles for inspection, the contractor shall furnish written notice to the Administrating Contracting Officer, Procuring Contracting Officer and the Product Quality Manager of the time and location of the inspection so the government may witness and participate in the inspection. The contractor shall make available to the government any record of inspections and tests which have been conducted on the FPVI vehicles and their components.

- a. F<u>PVI Report</u> The contractor shall prepare a FPVI test report at completion of FPVI. The test report shall be in sufficient detail for separate formulation of conclusions by interested parties not witnessing the test/inspection. The report shall address deficiencies discovered and corrective actions taken.
- b. <u>FPVI Approval</u> The Contracting Officer shall, by written notice to the contractor within 20 calendar days after receipt of the inspection reports, approve, conditionally approve or reject the FPVI report. The notice of final approval or conditional approval will not relieve the contractor from complying with all requirements of the Vehicle Purchase Description (Attachment 001) and all other terms and conditions of this contract. A notice of conditional approval will state any further action required of the contractor. A notice of rejection shall cite the reasons for the failure.
- c. <u>FPVI Re-Inspection</u> If the government rejects the FPVI, the contractor may be required at the government's option to repeat any or all tests that are applicable. After notification of the additional inspection, the contractor shall make any necessary changes, modifications or repairs to the semitrailers. The government has the option to select another production vehicle for test in lieu of the original semitrailer. Upon completion of additional inspection(s), the contractor shall again submit an addendum report. The contractor shall bear all costs related to additional test and responsibility for delays.
- d. <u>FPVI Vehicle Standard</u> After completion of each FPVI, the vehicle shall be restored to a like new condition at the contractor's expense. The First Production Vehicle shall then be retained as the manufacturing standard vehicle until completion of the contract and will be submitted as the last unit to be delivered under the contract. All configuration changes as a result of drawing and/or specification modifications taking place after the FPVI shall be made to the First Production Vehicle so these vehicles are representative of the current configuration throughout the life of the contract.
- C.33 <u>Vehicle Restoration</u> Upon completion of the Shakedown Test, Product Verification Test, and Follow On Production Test the contractor shall restore these vehicles to a like new condition at no cost to the government. The contractor shall be responsible for round trip transportation costs for these test vehicles.

C.34 <u>Failure Analysis And Corrective Action Report (FACAR)</u> (DI-RELI-81315 - CDRL A016)

The contractor shall be responsible for accessing Yuma Proving Grounds computer data bases for all Test Incident Report data during Production Verification and Follow On Production Tests. Upon acquiring a Test Incident Report (TIR), the contractor shall assess the failure and shall furnish a Failure Analysis and Corrective Action Report with the proposed corrective action for each reported TIR. The FACAR shall indicate corrective action status as "final" or "interim."

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- a. <u>FACAR Interim Response Times</u> The contractor shall provide interim failure analysis and corrective action responses after notification within the following times:
 - (1) Critical Defect 48 hours
 - (2) Major Defect 7 days
 - (3) Minor Defect 30 days No interim response required.
 - (4) Informational 30 days, if requested
- b. FACAR Final Response Times A consolidated final response is required for all defects (Critical, Major and Minor) within thirty (30) calendar days after completion of testing. If the contractor's response is rejected, the contractor will be officially notified and shall be required to resubmit the response within thirty (30) calendar days. Failure to provide the interim and final failure analysis/corrective action reports within the specified time limits or failure to provide the Government an acceptable response shall be cause for the reduction or suspension of the government provided progress payments and/or suspension of vehicle acceptance.
- C.35 <u>Welding Requirements</u> The welding procedures and the welder qualification shall be in accordance with AWS D1.1,AWS D1.2 and AWS B2.1.
- C.36 <u>Counterfeit Parts</u> The contractor shall establish, implement and maintain documented procedures which shall identify and preclude the use of counterfeit parts in production and shall impose similar requirements on subcontractors.

CONFERENCES

C.37 Start of Work (SOW) Meeting

- a. The contractor shall host a Start of Work (SOW) meeting within 30 days after contract award at the contractor's facility. Arrangement for this meeting shall be made between the contractor and the ACO who will coordinate with the PCO. The primary purpose of the meeting is for the contractor to brief the contract performance plan (both hardware and data items) and provide a forum for the government to answer questions concerning specific requirements. The contractor shall submit a list of questions to the PCO 15 days prior to the SOW meeting. This list of questions will serve as agenda items to be discussed during the SOW meeting.
- b. Integrated Logistics Support (ILS) The contractor's presentation for ILS shall contain a detailed description of the procedures, actions, events and organization the contractor intends to employ to accomplish the ILS program, such as, Design Influence and Integration, Maintenance Planning, Supply Support Planning (including provisioning, Support Equipment, Test Equipment, TMDE Planning, Training, Technical Manuals development, Packaging, ECP & DCN processing and the contractor's Quality Management program). The contractor shall identify personnel assigned logistics responsibilities and establish milestones for executing the ILS program. The contractor shall also describe the contractor's processes that will be employed in planning, developing and acquiring the logistics resources required for test support and operational support at all specified maintenance levels.
- c. <u>Engineering, Configuration Management and Quality</u>. The contractor's presentation for engineering items, configuration management and quality shall contain a detailed description of the procedures, actions, events and organization the contractor intends to employ to accomplish the mission.

C.38 Maintenance, Provisioning and Publication (MPP) Reviews

- a. The initial MPP Review of documentation shall be held on or about 60 days after contract award (see Attachment 004). Subsequent reviews shall be held approximately every 45 days, as necessary, until all required data is approved and LMI Data Products information is entered into the Provisioning Master Record (PMR) including all data covering any configuration or part number changes, updates or deletes (DCNs).
- b. The contractor's Logistics Management Information (LMI) Data Products & Summaries will be reviewed by the government's MPP Review Team for accuracy and completeness. The contractor shall have available supportive material and maintenance rationale for all LMI data presented for the Government's review. These MPP Reviews shall be held alternately at the government's facility in Warren, MI and the contractor's facility. When the reviews are at the contractor's facility, the contractor shall provide a meeting place, administrative support, office equipment and clerical support as required.

C.39 Formal Program Status Reviews

The contractor shall prepare and present Program Reviews to be held approximately every 6 months alternately at the contractor's and the GOvernment's Warren, MI facility. The topics shall include, but are not limited to the following: work effort status, logistics, engineering, schedule, test progress, quality and corrective actions. The contractor shall prepare meeting minutes and include identification of items requiring specific actions, response dates and responsible organization. Other government agencies and contractors may be in attendance.

C.40 <u>Conference Agenda</u>

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The contractor shall prepare conference agendas prior to the Start of Work (SOW) and all MPP Reviews. The agendas will be comprised of topics mutually agreed to by the participating parties and shall be submitted at least 10 days prior to the start of the meeting/conference.

C.41 <u>Conference Minutes</u>

(DI-ADMN-81250A - CDRL A018)

The contractor shall prepare minutes of meetings for the Start of Work, MPP Reviews, Semi-annual Program Reviews and special meetings for which an agenda has been developed

C.42 Equipment Control Record, DA Form 2408-9

The contractor shall submit the Form 2408-9 for each vehicle IAW DA-PAM 738-75 and make distribution as follows:

- a. Add the number 3 copy of DA Form 2408-9 in the vehicle log book binder with each vehicle shipment.
- b. Send the number 1 copy of the 2408-9 to: CDR, USALOGS, ATTN: AMXLS-RR, Redstone Arsenal, AL 35898-7466.
- c. The number 2 copy of the 2408-9 shall be sent to: USATACOM, ATTN: AMSTA-LC-CHHM, Warren, MI 48397-5000.

Bulk shipments of monthly production is acceptable.

C.43 Logistics Management Information (LMI) Summaries/Warranty Performance Report

(DI-ALSS-81530 - CDRL A019)

The contractor shall submit a warranty report in the contractor's format which describes the summary of warranty activity for six month periods and provides data indicating the part number involved, nomenclature, short description of the problem, number of claims in descending order and costs.

C.44 <u>Transportability Report</u>

(DI-PACK-80880A - CDRL A020)

a. The contractor shall submit a Transportability Report which includes data on recommended procedures for positioning and securing the M872A4 Semitrailer for transport by trailer and rail car, slinging and lifting the vehicles, and procedures, man-hours and all tools required for any disassembly necessary for shipment by highway, rail, marine and air.

C.45 Air Transportability Report

(DI-PACK-80932 - CDRL A021)

The contractor shall complete the Vehicle Data Sheet shown in Attachment 003.

C.46 Bulkhead for Independent Testing

The contractor shall ship one M872A4 production representative bulkhead to the government designated independent testing lab.

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QUALITY, INSPECTION AND ACCEPTANCE

QUALITY REQUIREMENTS

- 1 FAR Clause 52.246-16, Responsibility for supplies
- 2 Far Clause 52.246-2, Inspection of Supplies-Fixed Price PADDS Clause.
- 3 Intentionally left blank.

4 Production Verification Test (PVT)

The government shall select the following number of vehicles, out of the first three (3) produced, excluding the shakedown and FPVI vehicles. The vehicles selected shall be subjected to tests as cited in the Vehicles Purchase Description (Attachment 001). The government shall conduct the test at the Yuma Test Center, Yuma Proving Ground, AZ. The contractor shall ship three of the vehicles to YPG. Two vehicles will be used for reliability and maintainability (R/M) and one for performance test. The government will not begin PVT until FPVI and Shakedown Tests have been successfully completed and report approved.

PRODUCTION VERIFICATION TEST R/M TESTING PERFORMANCE

M872A4 Semitrailer 2

1

5 <u>PVT Result Notification</u>

The government will notify the contractor within 180 days after receipt of the test vehicles indicating that the government approves, conditionally approves or rejects the PVT. The notice of approval or conditional approval shall not relieve the contractor from complying with all the requirements of the Purchase Description (Attachment 001) and all other terms and conditions of this contract. A notice of conditional approval shall state any further action required. A notice of disapproval shall cite reasons for disapproval. If the government rejects the PVT, the test vehicles are rejected until evidence is provided that corrective action has been taken to eliminate the defect(s). In the event of a PVT failure, the contractor may be required at the government's option to repeat any or all of the testing. Any defect found shall be prima facie evidence that all items produced prior to testing are similarly deficient. The contractor shall correct all defects at the contractor's expense. The Contractor shall be responsible for all shipping costs that result of PVT.

6 Engineering Change Inspection and Test

The contractor shall not make any change(s) to any vehicle system or component part after acceptance of the PVT unless the change(s) are approved through the Engineering Change Proposal (ECP) process.

- a. The government reserves the right to inspect the vehicle systems or components at the contractor's expense in order to determine whether changed submitted by ECP (form, fit and function) should be approved. Any production or delivery delays caused by the Government's re-inspection will not be considered an "excusable delay" for default purposes.
- b. The government reserves the right to conduct additional testing at the contractor's expense if the government believes any proposed engineering change may have a potential negative impact on the ability of the vehicle to meet the requirements of the vehicle performance specification.

7 Follow on Production Test (FOT)

- a. The government reserves the right to conduct a Follow On Production Test at a Government Proving Ground. The government shall select one (1) vehicle at the government's discretion from the production quantity. The FOT may be conducted for each production year.
- b. Failure of the FOT vehicle shall be cause for test failure until the contractor provides evidence that corrective action has been taken to eliminate any deficiency. Any deficiency found during or as a result of FOT shall be prima facie evidence that all vehicles produced under this contract are similarly deficient. Any vehicle failure discovered during testing is considered to apply to all vehicles.
- c. In the event of vehicle failure, the government reserves the right to retest the vehicle after all defects are corrected. The contractor shall bear the responsibility for delays in the program test period resulting from vehicle defects or failure to furnish timely parts support. The government shall have the right to extend FOT testing for the contractor's induced delay. The contractor shall be responsible for all costs associated with retest of FOT.

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8 Contractor Support for Government Tests The contractor shall furnish, within 48 hours, repair parts for failed components on both PVT and FOT vehicles at the selected Government Proving Ground.

9 <u>Control Tests</u>

The government shall select, at random, one of each 50 vehicles produced or one from each month's production for a control test. The vehicle selected shall be operated for a distance of not less than 50 miles by the contractor. The vehicle shall be completely assembled and serviced. The test course shall be selected by the contractor and shall be smooth level hard surface roads. The vehicle shall be at the maximum (dummy)payload or maximum gross combined vehicle weight allowed for the state where the test is to be conducted. All operational components and assemblies shall be tested and results documented.

- Control Test Failure If the vehicle selected fails to pass any of the control tests, the Government inspector shall stop acceptance and testing of subsequent vehicles until such time as conditions causing the failure have been corrected. If the deficiency is design in nature, all models shall be considered similarly effected. All defects found during testing shall be prima facie evidence that all vehicles accepted subsequent to the previous acceptable control test vehicle are similarly defective unless evidence satisfactory to the contracting officer is provided by the contractor that they are not similarly deficient. Such defects shall be corrected by the contractor at no cost to the government. Another vehicle, of the same model, with corrective actions applied shall be subjected to the control test.
- Change of Suppliers If the contractor elects to change sources of supply for any vehicle component after conditional acceptance of the vehicle configuration, the government reserves the right to conduct additional inspections prior to acceptance of any item contained in the new component. The contractor shall be responsible for costs of inspection and test to assure the components meet specification criteria. Any production or delivery delays caused by the additional inspection/testing shall not be considered "excusable delays" for default purposes.
- Certifications All certifications provided by the contractor shall include appropriate supporting documentation such as, but not limited to; test data, material analysis, drawings, purchase orders, specifications, etc. In the event that particular certifications are not acceptable to the government, the contractor shall conduct additional examinations and tests and/or provide additional documentation as required to verify conformance at no additional cost to the government.
 - a. The contractor shall provide a new or updated certification whenever a change is made in the:
 - (1) Process used to provide a certified product.
 - (2) Legal requirement for a standard of a certified product.
 - (3) Supplier of a certified product.
 - (4) Event of a new contract/rebuy.
- b. Subcontracting does not relieve the contractor from providing all the necessary supporting documentation for all certifications provided to the government.

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CONTRACTOR RESPONSIBILITY FOR AR 700-142 MATERIAL RELEASE COMPLIANCE

- a. Contractors need to be aware that TACOM must meet the requirements of AR 700-142 and obtain formal "Material Release" prior to introducing a new item for use by active Army units, and that the end item required hereunder qualifies as a "new item". In addition to the actual test items provided by contractors to demonstrate operational performance, there are significant information requirements as called out in this contract that are needed to support the AR 700-142 Material Release. Contractors should familiarize themselves with the relationship between the information requirements of the contract and the requirements for a material release. A significant, critical part of the support for the material release is based on data and information provided under this contract.
- b. Contractors play a crucial role in a successful material release by providing accurate and timely data and information allowing TACOM to prepare a material release package that will satisfy the detailed requirements of AR 700-142. The Government has allowed in the contract schedule for data sufficient time to prepare the necessary documents and obtain a full release prior to fielding of contractually required hardware to field units.
- c. Failure to provide accurate and timely data as required by the contract causes the Army significant harm, both operationally and financially. Failure to provide the needed capability damages the Army's ability to perform its mission, and causes financial loss because of disrupted training schedules and storage costs due to inability to field.
- d. The Contractor is hereby advised that failure to provide timely and accurate information and hardware as required by the contract which is necessary for the material release process may be cause for refusal of acceptance of hardware end items required hereunder. The Government will assume no liability for any costs associated with such refusal. Acceptance of hardware end items will not proceed until the contractor fully complies with all data requirements under the contract necessary to complete a full AR 700-142 Material Release. Furthermore, any contractually authorized or other delay in delivery of data and information will be accompanied by a corresponding delay, at the Government's option, in delivery of hardware items, such that the interval between the delivery of data and information and the hardware end item is maintained as originally written.

OPTION FOR TECHNICAL MANUAL VALIDATION AND VERIFICATION/LOGDEMO

In accordance with clause C.23, the Government shall have the unilateral right to excercize the option for the Technical Manual Validation and Verification/LOGDEMO. This option shall be excercisable within anytime during the first 24 months of contract award.

*** END OF NARRATIVE I 001 ***

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SECTION J - LIST OF ATTACHMENTS

List of Number

Attachment 001 PURCHASE DESCRIPTION ATPD 2332 07 FEBRUARY 2003 DELETED

Attachment 005 PURCHASE DESCRIPTION ATPD 2332 30 APRIL 2003

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SECTION K - REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS

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. PROPOSAL INSTRUCTIONS

L-3 52.215-1 Instructions to Offerors-Competitive Acquisitions MAY/2001

(OCT 1997)

L.4 Proposal Instructions and Content

- a. Proposals shall be submitted electronically in the format and quantities set forth below. All proposals shall be in English (American Standard) language. All proposals shall be in US dollars. In preparing proposals, the Offeror shall cross-reference his response within each section of the proposal to the pertinent evaluation criteria in Section M. In the case where a proposal response would become duplicative of a response previously given, the proposal shall reference and not restate the information. Each section of the proposal shall be separable to facilitate review by the Government. Your proposal shall include all information specified and address all requirements outlined in Section L.
- b. The Offeror's proposal/offer as required by this section shall be evaluated as set forth in Section M of this solicitation.

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c. The proposal shall be submitted in three (3) separate volumes/electronic folders. The volumes/electronic folders shall be clearly labeled as:

VOLUME NO. CONTENTS NUMBER OF COPIES

Vol.	I	Certifications and Representations	3	Electronic Copies	(3	CDs)
Vol.	II	Production Capability	3	Electronic Copies	(3	CDs)
Vol.	III	Price Area Proposal	3	Electronic Copies	(3	CDs)

- d. Volumes I and II shall utilize the Windows 6.0/95 (or higher) version of Microsoft Word or compatible software. Volume III (Price Area Proposal) shall use Microsoft Excel Version 5 (or higher) on CD-ROM. All volumes shall be appropriately labeled.
- e. An index shall be provided with each section of each volume with reference to page numbers. Separate drawing illustrations may be submitted on videotape or in other file formats or media. However specific formats and media of supporting data should be checked with the Government prior to submission to insure compatibility. (See Federal Acquisition Regulation Clause incorporated by reference 52.215-4850).
- L.4.1 Volume I Certifications/Representations:

(3 Electronic Copies)

In this Volume offerors will provide:

- a. One copy of an SF 1449 signed by a person authorized to sign proposals, quotations, or proposals on behalf of the offeror. Include completed fill-ins of SF 1449 Blocks 12, 17, 23, 24 and 30.
- b. One copy of this solicitation (Sections A (Pages 1-2), B (Pages 3-19), I (Pages 20-54), J (Page 55 and all Attachments and Exhibits) and K (Pages 56-82) with all fill-ins completed.
- c. A list of exceptions the offeror takes to any term, condition, or requirements contained in the solicitation and the basis for each exception.
- L.4.2 Volume II Production Capability Area:

(3 Electronic Copies)

In this Volume offerors shall provide the following:

- a. Existing Facility Description: The offeror shall identify the proposed facility(s) to be used in the performance of the contract and provide the dimensional size of all structures, storage areas, lots, test facilities, open areas, and shipping receiving
- b. Planned Facility Description: A milestone schedule for any new facility construction and identify the size and capacity of the new facility and any impact that the new facility construction may have on the proposed production schedule.
- c. Production Facility Layout Description: Describe your proposed production facility(s) layout to meet the maximum daily production rate. The layout should identify the progressive physical flow of Hardware within the offerors proposed production site(s). The progressive physical flow shall detail the flow process from the point of material receipt and storage, through sub-assembly work,

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final trailer assembly, paint, test, preparation and shipment.

- d. Key Equipment Requirements: The offeror shall provide a description of any key equipment that is not included in the Facility Descriptions described above, along with a description of the milestones for the acquisition, installation and operational availability of any key equipment that may be purchased later.
- e. Time Phased Critical Path (TPCP) for FPVI, Test and Shake-down Units: A Time Phased Critical Path of key events necessary to ensure the timely delivery of Semitrailers conforming to the purchase description. The TPCP will be used to evaluate offerors plans to initiate and execute a sound resource and manpower development program that will meet Test Unit development and production requirements.
- f. Time Phased Critical Path for Production Units: A Time Phased Critical Path of key events necessary to ensure the timely delivery of Semitrailers conforming to the purchase description. The TPCP will be used to evaluate the offerors plans to initiate and execute a sound resource and manpower development plan that will meet the estimated required production rate of 65 each M872A4 Semitrailers with Vehicle System Kits per month.

Time Phased Critical Path should include but is not limited to the following:

- 1. Completion of Design Activity
- 2. Issuance of Purchase Orders for Long Lead Items/Facilitization
- 3. Receipt of Long Lead Time Item Material
- 4. Assembly Time
- 5. Paint
- 6. Final Preparation and Acceptance
- 7. Delivery to U.S. Port of Debarkation (applies to offerors that are outside CONUS)
- g. System Integration Plan: System Integration Plan should describe the tasks that need to be undertaken to incorporate each of the operational subsystems that are described in the M872A4 Semitrailer Product Description. An example of an operational system is an item such as the Anti-lock Brake system as it relates to the Pneumatic Brakes, and Brake Lights.
- h. Manufacturing Production Plan: The Manufacturing production plan should describe the actual material flow process through the production facility. The events in the Time Phased Critical Path and System Integration should complement the information provided in the Manufacturing Production Plan.
- L.4.3 Volume III Price Area:
 - (3 Electronic Copies)

In this Volume offerors shall provide the following:

- a. Prices for all CLINs set forth in Section B. All prices as well as any pricing information provided as a result of these instructions shall be in U.S. Dollars.
- b. The basis that was used for the establishment of the proposed prices including any offered discounts, established catalog, price listings or other verifiable established records that are regularly maintained and published or otherwise available for customer inspection. The information described is intended for use to establish the reasonableness and realism of the offerors proposed price. The offeror may be required to provide any or all of the following information on a per unit basis (in accordance with FAR 15.403.-3) to establish that the proposed price is realistic.
 - 1. Direct Labor hours for fabrication and assembly.
 - 2. Direct Labor rates and indirect rates.
 - 3. Direct Unit Material costs to include raw material and purchased items over \$100.00 per unit.

Range Pricing should not be proposed and will not be evaluated. Pricing must be proposed based upon the RFP CLIN structure.

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SECTION M.1.0 General:

The Government plans to award a single contract for the M872A4 Semitrailer subject to the provisions contained herein. However, the Government reserves the right to make no award as a result of this solicitation if, upon evaluation, none of the proposals are deemed to meet the requirements at an acceptable level of risk or price. The evaluation of proposals submitted in response to this solicitation shall be conducted on a source selection basis utilizing a "tradeoff" process to obtain the best value to the Government. The Government will weigh the evaluated Production Capability proposal against the evaluated price to the Government. As part of the tradeoff determination, the relative advantages and/or disadvantages of each proposal will be considered in selecting the offer that represents the best overall value to the Government.

M.1 CONTRACTOR ELIGIBILITY FOR AWARD TACOM 52.209-4011

The Government will award a contract to the offeror that:

Represents the best value to the Government

To make sure that your firm meets the responsibility criteria at FAR 9.104 the Government may request data and/or visit your facility.

If the offeror does not respond to Government requests for data within 7 days from the date you receive the request, or if you refuse to allow a visit your facility, the Government may determine you non-responsible.

If a visit to your facility is arranged, please make sure that you have current certified financial statements and other data relevant to your proposal available for our team to review.

M.1.2 SOURCE SELECTION PROCESS AND BASIS FOR AWARD:

The award of one contract for the M872A4 Semitrailer will be made to that offeror whose proposal best meets program goals and objectives to competitively acquire Semitrailers from the lowest priced offeror having the lowest risk of successfully producing the M872A4 Semitrailer. The evaluation will be based upon two evaluation areas, Production Capability and Price. The relative order of importance of the two Areas is detailed below in paragraph M.1.3

M.1.3 <u>Evaluation Guidance/Process</u>:

- M.1.3.1 Selection of the successful offeror will be made following an assessment of each proposal against the solicitation requirements and the criteria below. The criteria contained herein will be used to evaluate and assess the information provided by the offerors in response to the information called for in Section L.
- M.1.3.2 Proposals found to be unrealistic in terms of Production Capability, or Price, will be judged either as exhibiting a lack of competence or failure to comprehend the Governments requirements and may be so evaluated and rated, or rejected for such reasons. Furthermore, any significant inconsistency between proposed Production Capability requirements and the Price Area, if unexplained, may be grounds for rejection of the proposal due to an offerors misunderstanding of the work required or an inability to perform any resultant contract. The Government will evaluate each proposal strictly in accordance with its content and will not assume that performance will include areas not specified in the offeror's proposal.
- M.1.3.3 The Price Area and Production Capability Areas of each proposal will be evaluated. However, the closer competing offerors' evaluations are in the Production Capability Area, the more significant the Area of Price becomes in the decision. The Price Area is considered equal in importance to the Production Capability Area; however the Price Area may become a controlling factor when:
 - (1) two or more proposals are otherwise considered equal;
 - (2) an otherwise superior proposal is unaffordable; or
 - (3) the advantages of a higher rated, higher priced proposal are not considered to be worth the cost premium.

M.1.3.4 Risk.

During the evaluation process, the Government will assess the merits and risks (proposal risk and performance risks) of the offerors proposal. It is important to distinguish the difference between proposal risk and performance risk:

1) Proposal Risks. Proposal Risks are those risks associated with an offerors proposed approach in meeting the Government Requirements. Proposal Risk is assessed by the Source Selection Evaluation Board (SSEB) and is integrated into the assessment of the Price Area.

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(2) Performance Risks. Performance Risks are those risks associated with the probability that an offeror will successfully perform the solicitation requirements as indicated by that offerors production capacity and capability plan. Performance risk will be assessed by the Source Selection Evaluation Board (SSEB) in the Production Capability Area.

- M.1.3.5 Rejection of Offers: The Government may reject, without evaluation, any proposal which:
- a. Merely offers to perform work according to the RFP terms or fails to present more than a statement indicating its capability to comply with the RFP terms without support and elaboration as specified in Section L of this solicitation; or
- b. Reflects an inherent lack of technical competence or a failure to comprehend the complexity and risks required to perform the RFPs requirements due to submission of a proposal which is unrealistically high or low in price and/or unrealistic in terms of technical or schedule commitments; or
- c. Contains any unexplained significant inconsistency between the proposed effort and Price, which implies the offeror has (1) an inherent misunderstanding of the scope of work, or (2) an inability to perform the resultant contract.
- d. Is unbalanced as to prices for the first orderings year. An unbalanced offer is one, which is based on prices significantly high or low for one given period versus another period. There must be a direct relationship between the effort expended and its price for each ordering year; or
 - e. Fails to meaningfully respond to the Proposal Preparation Instructions specified in Section L of this solicitation.
- Evaluation Process: Government Subject Matter Experts will evaluate Proposals submitted in response to this solicitation. Proposals will be evaluated as specified herein, to include developing narrative support for the evaluation conclusions under each Area. The Government reserves the right to reject offers, in accordance with M.1.3.5 above, without evaluation.

M.1.4 Evaluation Criteria

The award of one contract for the M872A4 Semitrailer shall be made to that offeror whose proposal is most advantageous and represents the best overall value to the Government, based upon the following evaluation criteria:

- a. Proposals will be evaluated based upon two evaluation Areas, as follows:
 - (1) Production Capability
 - (2) Price
- b. The Areas of Production Capability and Price are equal in importance but the Price Area will be used as the determining factor in otherwise equivalent proposals.
- M.1.5 Production Capability Area
- The Area of Production Capability will be evaluated as follows: M.1.5.1
- (a) The assessment of Production Capability will be based on the offerors and significant subcontractors (those subcontractors that are expected to accomplish 50% or more of the proposed work effort) proposed approach to meet the production and delivery requirements of this RFP, as it relates to the probability that the offeror will successfully accomplish the required effort. When addressing Production Capability risk, the Government will focus its inquiry on the offerors and significant subcontractors proposed approach as relates to program production requirements including (1) system integration (2) manufacturing production plans and (3) proposed time phased critical path.
- (b) Significant omissions, problems, or lack of relevant data in any element of the work can become an important consideration in the source selection process.
- (c) In evaluating each offerors production capability, the Government will look at the offeror and significant subcontractors proposed delivery schedules and planned approaches to initiate, monitor and control the inputs of material, labor and processing activities associated with production.
- (d) The proposal risk assessment will be based upon the information provided in response to Section L as related to the offerors proposal to successfully and in a timely manner meet the delivery milestones for the projected delivery orders described as follows:
- (i) For purposes of this evaluation, and consistent with program objectives, it is anticipated that award of the First Article Delivery Order will be made concurrent with award of the IDIQ contract, which would result in the required delivery of First Article Test (FAT) Units 90 days after award of the IDIQ Contract. It is anticipated that Full Rate production approval for the initial hardware order of 520 M872A4 Semitrailers will occur at the end of test and evaluation at approximately 270 Days after award of the IDIQ

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contract. Delivery of the 520 M872A4 Semitrailers will therefore commence 360 days after IDIQ contract.

- (ii) Delivery of five (5) each M872A4 Semitrailers as Test Articles described under CLINs 0001AA, 0001AB, 0001AC, one (1) each Vehicles Systems Kit Test described under CLIN 0003, to occur 90 Days after IDIQ contract award.
- (iii) Delivery of 520 each M872A4 Semitrailers with 524 Each M872A4 Vehicle Systems Kits: Award of the initial M872A4 Production Hardware delivery order as described under CLINs 0004 and 0009 will be made concurrently with award of the IDIQ contract. The estimated monthly deliveries will be 65 Each M872A4 Semitrailers and Vehicle Systems kits per month.

Price Area M.1.6

- M.1.6.1 The Price Area evaluation will consider the total evaluated price to the Government. The assessment of total evaluated price will include consideration of the reasonableness and realism of the proposed prices. A price is considered reasonable if that price does not exceed what would be incurred by a prudent person in the conduct of competitive business. Realism asks the question, Does the proposal accurately reflect the offerors proposed effort to meet program objectives and requirements? The results of the Price Realism assessment will not be used to adjust the offeror's total evaluated Price. However, the results may be used both in (a) the assessment of Proposal Risk in the Production Capability Area, and (b) determining offeror Responsibility.
- Notwithstanding any other provision to the contrary, the Government may, at its sole discretion, waive all first article test requirements, or portions of those tests, for any offeror that qualifies for a waiver. In the event a waiver is granted, the amount proposed for the first article test, or the portions of the first article test, which are waived, will be deducted from the total evaluated price.

M.1.6.3

Total

The proposed price will be evaluated as follows:

- a. The proposed price for the five (5) each test articles listed under CLINS 0001AA, 0001AB, 0001AC with one (1) each Vehicle Systems Kit under CLIN 0003 to be submitted for First Article Testing (FAT).
- b. The proposed prices for each of the following M872 A4 Semitrailer CLINs 0009, 0010, 0011, 0012, and 0013 and Vehicle Systems Kit CLINS 0004, 0005, 0006, 0007 and 0008 as multiplied by the estimated quantity for each respective ordering period. For evaluation purposes, the Government price assessment will be based on the sum of the planned M872A4 Semitrailer quantities as follows:

First Year Estimate:	Production Units	520	each CLIN 0009
	Vehicle System Kits	524	each CLIN 0004
Second Year Estimate:	Production Units	675	each CLIN 0010
	Vehicle System Kits	675	each CLIN 0005
Third Year Estimate:	Production Units	120	each CLIN 0011
	Vehicle System Kits	120	each CLIN 0006
Fourth Year Estimate:	Production Units	120	each CLIN 0012
	Vehicle System Kits	120	each CLIN 0007
Fifth Year Estimate:	Production Units	120	each CLIN 0013
	Vehicle System Kits	120	each CLIN 0008

Range Pricing should not be proposed and will not be evaluated. Pricing must be proposed based upon the solicitation CLIN structure.

1560 each

c. Transportation costs will be calculated based on the estimated quantities for CLINs 0009, 0010, 0011, 0012, and 0013 to the following Destinations:

First Fiscal Year (1)

including Test vehicles

	<u>Delivery Quantity</u>	<u>Address</u>
M872A4 w/VSK	240 each	Lincoln, NB
M872A4 w/VSK	2 each	Ft. Leonard Wood, MO
M872A4 w/VSK	240 each	Santa Fe, NM
M872A4 w/VSK	43 each	Annville, PA

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Second Fiscal Year (2)		
	Delivery Quantity	<u>Address</u>
M872A4 w/VSK	77 each	Annville, PA
M872A4 w/VSK	120 each	Camp Roberts, CA
M872A4 w/VSK	120 each	Des Moines, IA
M872A4 w/VSK	120 each	Camp Shelby, MS
M872A4 w/VSK	120 each	Boston, MA
M872A4 w/VSK	118 each	Columbus, OH
SUM	675	
Third Fiscal Year (3)		
	<u>Delivery Quantity</u>	Address
M872A4 w/VSK	120 each	Annville, PA
Fourth Fiscal Year (4)		
	Delivery Quantity	<u>Address</u>
M872A4 w/VSK	120 each	Camp Shelby, MS
Fifth Fiscal Year (5)		
	Delivery Quantity	Address
M872A4 w/VSK	120 each	Camp Roberts, CA

The offeror is cautioned that the shipping characteriestics required in FAR Clause "Guaranteed Shipping Characteristics FAR 52.247-60" should include the height, weight, etc. for the Vehicle System Kit (VSK) as part of the overall shipping characteristics.

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SECTION L - INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS

Status Regulatory Cite _ Title Date L-1 ADDED 52.211-14 NOTICE OF PRIORITY RATING FOR NATIONAL DEFENSE USE SEP/1990

ATPD 2332 30 APRIL 2003

PURCHASE DESCRIPTION

M872A4 VEHICLE, SEMITRAILER, FLATBED: DUAL PURPOSE, BREAKBULK/CONTAINER TRANSPORTER, 20/40' LONG ISO CONTAINER, 34 TON

- 1.0 Scope. This Purchase Description (PD) identifies the performance and definition requirements for the 34 ton (payload) flatbed semitrailer (stlr), designated by the Army (TACOM) as the M872A4. This tactical stlr is for use on paved and secondary roads (gravel and dirt). The trail/off-road usage is estimated at 5% of its total lifetime mileage.
- 1.1 Type of PD. This vehicle PD contains both the performance requirements and definition requirements for the M872A4. The vehicle performance requirements shall have priority over definition requirements in the event of any conflict. The M872A4 stlr will transport two M113 Family of Vehicles (FOV) variants, one 40' or two 20' ISO containers, equivalent in breakbulk cargo, including palletized cargo, such as ammunition.
- 1.2 Colors. Available vehicle top coat colors are as follows: forest green 383 and brown 383. Note: all part support from Government Supply System will be furnished with top coat of paint that is green color 383. The procuring agency will specify the vehicle top coat color for each production vehicle.
- 1.3 Kits. The procuring activity shall specify which of the following kits are to be furnished with each production vehicle:
- a. Side Rack Kit with Side Racks in CARC brown 383 top coat paint color.
- b. Side Rack Kit with Side Racks in CARC forest green 383 top coat paint color.
- c. Tarpaulin Kit in CARC, brown 383 color.
- d. Tarpaulin Kit in CARC, forest green 383 color.

Beneficial comments (recommendations, addition, deletions) and any pertinent data which may be of use in improving this document should be addressed to: U.S. Army Tank-Automotive and Armaments Command, ATTN: AMSTA-TR-E/ESA Warren. MI 48397-5000, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the and of this document or by letter.

1.4 Prime Movers. The designated prime mover tractors for the M872A4 are the M915, M915A1, M915A2, M915A3, and M915A4. The M878A2 yard tractor is designated for moving the M872A4 in a port area, maintenance yard or on and off RO/RO ships.

- 1.5 Commercial Components. The prime contractor is allowed to use off-the-shelf commercial components/material providing the performance (DOT and Army) and definition requirements specified herein are met, along with the paint/finish requirements specified herein.
- 1.6 Order Of Precedence. In the event of conflict between the text of this specification, and the references cited herein; the text of this PD specification takes precedence.
- 1.7 Definitions.
- 1.7.1 Trail. One lane, dry weather, unimproved, seldom maintained, loose surface road that are intended for low density traffic. Trails have a minimum lane width of eight feet, with no large obstacles (boulders, logs, and /or stumps). The trail test course is to have an average Root Mean Square (RMS) value of "1.0".
- 1.7.2 Transportability. The lifting and tiedown requirements in MIL-STD-209 are necessary to permit compatibility between military equipment, stlrs, and the transportation systems used for deployments. Also, included in this 209 standard are dimensional limits, design considerations, positioning requirements, and strength requirements for lifting provisions, to include helicopter External Air Transport (EAT) and vehicle tie down provisions. The basic transportability criteria for the use in development and shipment of items of material shall be IAW MIL-STD-1366. This standard covers dimensional and weight limitations for all modes of transport to meet the interface requirements of the Defense Transportation System (DTS), highways, tunnels, bridges, railways, etc.. The DTS assets include, rotary and fixed wing aircraft, railcars, ships, barges, etc. for worldwide transport and deployment.
- 2.0 APPLICABLE DOCUMENTS.

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2.1 Government Documents.

2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the applicable issue of these documents are those listed in the published issue of the Department of Defense Index of Specifications and Standards (DODISS) on the date the solicitation is published. (see 6.2).

SPECIFICATIONS

FEDERAL

MMM-A 181	Adhesives, Phenol, Resorcinol or Melamine Base	
TT-C-490	Cleaning Method for Ferrous Surfaces and Pretreatment for Organic Coatings	
DEPARTMENT OF DEFENSE		
MIL-PRF-20696	Cloth, Waterproof, Weather Resistant	

MIL-A-22397

Adhesive, Phenol & Resorcinol Resin Base (for Marine Service Use)

MIL-R-24049

MIL-C-46168

Coating, Aliphatic Polyurethane, Chemical Agent Resistant

MIL-P-53022

Primer, Epoxy Coating, Corrosion Inhibiting, Lead & Chromate Free

MIL-P-53030

Primer Coating, Epoxy, Water Reducible, Lead & Chromate Free

MIL-C-53039

Coating, Aliphatic Polyurethane, Single Component, Chemical

Agent Resistant

STANDARDS

FEDERAL

FED STD 595 Colors Used in Government Procurement

DEPARTMENT OF DEFENSE

MIL-STD-209

MIL-STD-642

MIL-HDBK-759

MIL-STD-810

MIL-STD-889

MIL-STD-889

MIL-STD-913

Interface Standard for Lifting & Tiedown Provisions

Identification Markings of Combat & Tactical Transport Vehicles

Human Factors Engineering Design for Army Material

Environmental Tests Methods & Engineering Guidelines

Dissimilar Metals

Requirements for the Certification of Sling Loaded Military

Equipment for External Transportation by Department of

Defense Helicopters

MIL-STD-1366 Interface Standard for Transportability Criteria

MIL-STD-1472 Human Engineering

AR 70-38 Research, Development, Test & Evaluation of Material for

Extreme Climatic Conditions

2.1.2 Other applicable Government Documents, drawings, and publications are as follows.

2.1.3 DEPARTMENT OF DEFENSE

Department of Defense Index of Specifications and Standards (DODISS).

(Copies of the DODISS are available on a yearly subscription basis either from the Government Print Office for hard copy, or microfiche copies are available from the Director, Navy Publication and Printing Service Office, 700 Robbins Avenue, Philadelphia, PA 19111-5093.)
DEPARTMENT OF TRANSPORTATION (DOT)

CFR 393.40	Required Brake Systems
CFR 393.41	Parking Brake System
CFR 393.42	Brakes Required on all Wheels
CFR 393.43	Breakaway and Emergency Braking
CFR 393.45	Brake Tubing and Hose Adequacy
CFR 393.46	Brake Tubing and Hose Connections
CFR 393.47	Brake Lining
CFR 393.52	Brake Performance
CFR 393.70	Coupling Devices and Towing

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CFR 393.86 Rear End Protection

CFR 393.100 Protection against Shifting or Falling Cargo

CFR 393.106 Front-end Structure

Title 49, Part 393, Parts and Accessories necessary for Safe Operation

49, CFR 393.201 Frames

49, CFR 393.205 Wheels

49, CFR 393.207 Suspension Systems Title 49, Part 571, Federal Motor Vehicle Safety Standards

49, CFR571.106 Brake Hoses

49, CFR571.108
Lamps, Reflective Devices
49, CFR571.120
Tire Selection and Rims
49, CFR571.121
Air Brake Systems
49, CFR571.223
Rear Impact Guard
49, CFR571.224
Rear Impact Protection

(Application for copies of DOT publications should reference the Code of Federal Regulations, 49 CFR, and the Federal Register, and should be addressed to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.)

2.2 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted are those listed in the issue of the DOISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

AMERICAN WELDING SOCIETY (AWS)

AWS	A2.4	Weld Symbols
AWS	A3.0	Weld Term & Definitions
AWS	B2.1	Specification for Welding Procedure & Performance Qualifications
AWS	D1.1	Structural Welding Code - Steel
AWS	D1.2	Structural Welding Code - Aluminum

(Application for copies of AWS publications should be addressed to the American Welding Society, 2501 NW 7th Street, Miami, Fl. 31025.) THE TIRE AND RIM ASSOCIATION, INC. Year Book.

(Application for copies of Tire and Rim Association publications should be addressed to The Tire and Rim Association, Inc., 175 Montrose West Ave., Copley, Ohio 44321.)

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO)

ISO 668 Series I Freight Containers - - - Classification, Dimensions & Ratings.

ISO 1161 Series I Freight Containers - - - Corner Fittings - - - Specification.

(Application for copies of ISO publications should be addressed to Global Engineering Documents, 7730 Caronelet, Suite 407, St. Louis, Mo. 63105.)

NATO STANDARDIZATION AGREEMENT (STANAG)

STANAG 2601	Standardization of Voltage of Electrical System in Tactical Vehicles
STANAG 2604	Braking System between Tractors and Semitrailers

STANAG 2004 Braking System between Tractors and Semitratiers
STANAG 4007 Electrical Connectors between Tractors and Trailers

STANAG 4009 Fifth Wheel Attachments and NATO Kingpin

STANAG 4381 Blackout Lighting Systems for Tactical Landing Vehicles

AMovP-01 Regulations and Procedures for Road Movements & Identification of Movement and Traffic Control Personnel and Agencies (Supersedes STANAG 2154)

(Obtain copies from Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, Pa. 19111-5094, Phone Number 215-697-2179, Facsimile 215-697-1462.)

Society of Automotive Engineers Incorporated (SAE, INC) SAE Standards and Recommended Practices

J318 - Air Brake Gladhand Service (Control) and Emergency (Supply) Line Couplers - Trucks, Truck-Tractors,

and Trailers (DoD adopted).

J387

J534

- Terminology - Motor Vehicle Lighting.

Lubrication Fittings

J560

J588 -

- Seven-Conductor Electrical Connector for Truck-Trailer

Jumper Cable.

Turn signal lamps for use on Motor vehicles less than 2032 MM in overall width.

J682 - Rear Wheel splash and Stone Throw protection

J700 - Upper Coupler Kingpin - Commercial Trailers and Semitrailers.

J702

Ј925 -

- Brake and Electrical Connection Locations - Truck Tractor and Truck Trailer.

Minimum Service Access Dimensions for Off-Road Machines

J1292 - Automobile, Truck, Truck-Tractor, Trailer and Motor Coach Wiring.

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(Non-Government Standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents also may be available through the librarian or other informational services.)

- 3.0 REQUIREMENTS.
- 3.1 First Article Tests. When specified (see 6.2), the contractor shall furnish stlrs that shall be subjected to first article inspection IAW 4.1.1.
- 3.2 General Design. The subject army stlr is considered a tactical rear area support vehicle due to its mission profile, including some off road travel, under extreme climatic conditions, etc. Subject stlr will have Government parts support and a Department of Army (DA) technical manual. All performance and definition requirements here in this PD are concurrent requirements unless nature prevents it from happening; such as fording in water when the ambient temperature is below 32 degrees F, during middle of Winter. Design will be such that maintenance and servicing can be accomplished without introducing new special tools in the Army supply system. The stlr shall be a 34 (off road payload rating) ton flatbed dual purpose stlr. The stlr, components, assemblies, and accessories shall conform to all FMVSS applicable on the date of published solicitation.
- 3.2.1 Accessibility. The design of the vehicle and optional equipment shall permit access for routine servicing and shall permit access for replacement and adjustment of component parts and accessories while personnel are wearing the MOPP IV gear and arctic gear, per SAE J925.
- 3.2.2 Federal Motor Vehicle Safety Standards (FMVSS). Subject vehicle shall comply with all Federal Motor Vehicle Safety Standards less license plate area.
- 3.2.3 Side Slopes. The loaded stlr when towed by truck-tractor shall be capable of operating satisfactory on a 10 % side slope, at reduced speed.
- 3.2.4 Longitudinal Slopes. The loaded stlr when towed by truck-tractor shall be capable of operating satisfactorily on a 30 % longitudinal slope.
- 3.3 Performance. The stlr shall evidence no part failure, deformation, permanent set, or interference between parts, as applicable, when towed, both empty and when loaded with rated payload to include R/M testing:
- (a) At speeds; 46 65 mph over paved roads *
- (b) At speeds; 20 45 mph over secondary roads (gravel & dirt) roads \star
- (c) At speeds; 02 -10 mph on trails/off-road. *
- * Weather and terrain conditions, etc. permitting
- 3.3.1 Turning Ability. The stlr shall be capable of a 90 degree turn angle in both directions to the coupled towing vehicle (M915

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family truck) without cramping, side-slipping, or damage to the stlr or the towing vehicle.

3.3.2 Tracking Ability. The stlr shall conform to the tracking requirements of 49CFR393.70(a) when the axles are aligned and the stlr shall track in a straight line within 2 inches.

3.3.3 Payload and Payload Distribution. The rated payload of the stlr, is 34 tons (68,000 pounds). It shall be capable of transporting a single American National Standards Institute/International Organization for Standardization (ANSI/ISO) standard size 40 foot long container, two M113s, or one or two 20 foot long ANSI/ISO containers. Regardless of the load composition, the stlr shall be capable of transporting loads with a combined weight of 68,000 pounds of breakbulk cargo such as ammunition. The load shall be distributed over the load space. See Table I. In addition, the stlr shall be able to transport breakbulk cargo not uniformly distributed over the platform load space, this requirement includes 34 tons over 20 feet length of platform space.

TABLE I: PAYLOAD DISTRIBUTION

Quantity Type of Load Maximum Weight (pounds) 1 2 1 2 N/A 40 foot ISO container 20 foot ISO containers 20 foot ISO container in center M113 Breakbulk 67,200 67.200 53,000 only if less than 34 ton 68,000

- 3.3.3.1 Tracked Vehicle Payload. The stlr shall be capable of transporting two M113s, or any two vehicles using the M113 chassis. The M113's weight shall be distributed over an area 12" X 115" inches (in), along the left and right edges of the platform. The tracked vehicles shall be placed on the stlr for optimum weight distribution.
- 3.4 Life Cycle Operations. The reliability and maintainability requirements shall be demonstrated during the stlr operations for a total of 6,000 miles per vehicle IAW Table II. The payload and environmental requirements are listed below.

TABLE II: OPERATIONAL PROFILE

COURSE Mileage,

Maximum Speed, Miles Percent % Loading Condition Per hour (mph) 10% Side Slope, 20% Longitudinal

Slope

Primary Road

5 At rated Payload

45-65 Empty

At Rated Payload 45-65

Improved Secondary

Road (Gravel/Dirt)

5 At rated payload

30-45 Empty

30-45 At Rated Payload

5 At Rated Payload 5-10 At Rated payload

0 At rated payload Fording (20 Inches) 0-2

10% Side Slope, 30% up & down grade 0 At rated payload 3-5 At Rated Pavload

- 3.4.1 Reliability . The reliability of the stlr shall be 6,000 Mean Miles Between Hardware Mission Failures (MMBHMF). For calculation of MMBHMF, a failure is anything that prevents the stlr from operating, reduces performance below essential levels, indicates that further operation would be unsafe, or indicates that further operation might result in extensive damage to the equipment. Any of these conditions that cannot be corrected by the crew in one hour using the Basic Issue Items (BII) that are carried on the prime mover or the stlr shall be considered a failure. Maintenance and human induced failures are excluded.
- 3.4.2 Maintainability (M). The total maintenance time, exclusive of daily crew checks and services shall not exceed 8 man hours during 6,000 miles of specified operation over the OMS/MF. This is a maintenance ratio (MR) of 0.04 at 30 miles of operation, equivalent to one hour of operation. The scheduled maintenance interval is one year, except for maintenance interval on the wheel ends which is to be three years. Maintenance and human induced failures are excluded.
- 3.4.3 Environmental. The stlr, and components, shall be able to withstand and operate under the following extreme conditions of weather, terrain and roads specified herein:
- a. Ambient Air Temperatures: At minus (-) 40 degrees Fahrenheit (F) to plus (+) 130 degrees Fahrenheit IAW MIL-STD-810.
 - b. Solar Radiation: Maximum intensity.
- c. Rain: Any amount, with reduced braking.
- d. Dust/Sand: Any amount in the air.
- e. Fording: It shall be able to ford water up to 20 inches deep without water contamination of hubs/wheel bearings.
- f. Storage: It shall withstand storage from -40 to 160 degrees Fahrenheit without deterioration.
- g. Wind: Up to 33 MPH steady and 45 MPH gusting.
- h. Relative Humidity: 0-100%.
- i. Atmospheric Pressure, Hail, Altitude N/A
- 3.4.3.1 Ozone. All rubber components used on the stlr shall be ozone resistant to the degree specified IAW ASTM D1171 using ozone chamber exposure Method A.
- 3.4.3.2 Fungus. The stlr shall be able to operate in any environment that encourages growth of fungus, mildew, etc., for a minimum of 30 days, using test method 508.5 of MIL-STD-810.
- 3.5 Dissimilar Metals. All dissimilar metals, as defined in MIL-STD 889, used throughout the vehicle shall be insulated (ex. by use of primer and paint, etc.) from one another to prevent galvanic action.
- 3.6 Materials. Material used in the manufacture of the vehicle shall be new and of the highest commercial quality as normally used for this type of equipment, considering strength, durability, ductility, and the purpose for which the equipment is to be used.
- 3.6.1 Prohibited Materials. Asbestos, cadmium, and radioactive materials shall not be used.
- 3.6.2 Recycled, Virgin and Reclaimed Materials. Two rubber chock blocks with zinc plated eye bolt on block end area surface.
- 3.7 Reserved.
- 3.8 Vehicle Dimension Requirements. The stlr, uncoupled from the towing vehicle, resting level on the landing legs, without payload, on level ground, shall conform to the dimensions specified in Table 11I.

TABLE Ill: Vehicle Dimension Requirements

32 inches

Overall length $\,$ 45 feet. Not to exceed

Overall width 96 inches

Length of ISO/Breakbulk load space 40 feet

Maximum Platform height 58 inches

 ${\tt Reserved}$

Distance from front of M872A4 to vertical centerline of kingpin.

Upper fifth wheel height (empty) from the ground to underside of upper 5th wheel plate. 51+/- 1 inches empty

Landing gear swing clearance (radius from centerline of kingpin to any portion of stlr 6 inches or more below upper fifth wheel plate)

96 inches

Clearance under landing gear 18 inches minimum

M872A4 Fording height (1/4 hour) 20 inches minimum

Height with installed bulkhead and installed side

racks As determined by features

- 3.8.1 Vehicle Curb Weight Requirements.
- a. Subject vehicle design goal for curb weight (including BII items) shall not exceed 18,000 pounds maximum.
- b. State of the Art creative means shall be used to keep subject stlr curb weight below 18,000 pounds. An example of this is having ellipse holes in the web of the main beam.
- c. Weights of Kits to include (Tiedown chains and Load turn binder's, etc.) procured concurrently with the vehicle shall have their weights be considered as part of the payload.
- d. Tiedown chains and Load binders placed on the vehicle by the field/test site shall not be considered part of the vehicle initial curb weight.
- e. Contractor shall perform a weight study on all components for stlr in order not to exceed the 18,000 pound requirement.
- 3.9 Construction. The two main longitudinal frame members shall be fabricated of high strength steel with a yield strength of not less than 100,000 pounds per square inch (psi). The yield strength of main frame cross-members shall be rated at not less than 70,000 psi minimum.
- 3.9.1 Frame. The frame shall not have any performance failures on components IAW 49CFR393.201. The main frame members shall be adequately braced with a sufficient number of cross members to prevent permanent deformation. The outside frame members shall run the full length of the load space. The rear cross member shall extend the full width of the stlr. With the stlr statically loaded and the load distributed as specified herein, the maximum fiber stress in any frame member shall be no greater than one third of the material yield strength. Weight reduction techniques may be used (holes in web of main beams) as long as performance requirements are maintained (example, Super Beam). The frame shall show no permanent deformation after torsional loads from off road operations.
- 3.9.1.1 Frame Flanges. Main frame members shall have one piece upper and lower flanges, running the length of the stlr.
- 3.9.1.2 Frame Splices. The frame members shall not be spliced.
- 3.10 Axles and Suspension. Axles shall have the manufacturers rated capacity at least 25,000 pounds. Suspension clearances shall preclude interference between tires and any portion of the stlr when operating under all off road conditions, specified herein. The stlr shall be of tri-axle configuration, using axles and a suspension currently being produced for the commercial field. The suspension shall have the manufacturer's rating capacity at least 75,000 pounds.
- 3.10.1 Tri-axle Assembly. The tri-axle assembly on stlr shall be positioned and individual axles spaced so 60 % +/- 5% tolerance of the stlr gross weight (curb weight plus payload) will be supported by the tri-axle assembly, with the stlr loaded as specified herein. The hubodometer shall be installed on road side forward most wheel axle.
- 3.10.2 Suspension System. The suspension system shall be IAW 49CFR393.207. Each component of the suspension system shall have a rated capacity at least equal to the load imposed by loading conditions outlined in Table 1. Clearances shall prevent interference between the tires and any other parts of the stlr under the operating conditions specified herein, except that minor tire scuffing on frame members is allowed during ramp negotiations for roll-on roll-off ship requirements. Equal loading shall be maintained between axles within 10%. Adequate articulation shall be provided to accommodate a 15 degree ramp angle with the M878A2 yard tractor. Bushings shall be of extended long-life nylon or equivalent material.
- 3.10.2.1 Suspension Articulation. Sufficient wheel articulation shall be provided to maintain equal loading on each axle within 10% under normal operating conditions as specified herein. The jounce bumpers shall keep the axles from hitting the frame.
- a. With first and third wheels on one side and center wheel on opposite side, elevated four inches above remaining wheels.
- b. With any pair of opposite wheels elevated four inches above remaining wheels.
- c With any two pairs of opposite wheels elevated four inches above the remaining pair.
- 3.10.2.2 Lubrication. Grease lubrication fittings shall conform to SAE J534. The hub cap, bearings, and hub shall be completely

filled with 100% semi-fluid Mobilith 007 or equivalent synthetic grease.

- 3.11 Axle and Wheel Ends.
- a Axles and brakes shall be commercially rated as 25,000 pounds capacity.
- b Brakes shall be air brakes of S-cam drum type.
- c ABS required on all axles. ABS diagnostic box shall be located above fording level with easy access for maintenance.
- d ABS Diagnostic light is to be mounted on front of stlr on an angle with visibility to driver without glare.
- e Spring failsafe brakes are required on all axle ends.
- f Brake stopping distance test required on each vehicle.
- g Spring brake holding test on 30% longitudinal grade required on each vehicle.
- h The vehicle brake system shall meet 49CFR393, applicable requirements. In addition, glad hands dust covers shall be automatically closing type when truck air hoses are disconnected.
- i Brake shoes shall be provided of extended life type.
- j The DTC Jennerstown brake fade test or equal shall be performed on one (1) PVT vehicle, with full payload.
- k Pre set wheel ends shall be provided, which will utilize pre-adjusted bearings, improved seals, and bearing life and reduce maintenance. That is, pre-set wheel ends shall utilize pre-adjusted bearings, be of field service design, and utilize extended life wheel seals.
 - Wheel end grease will be 100% synthetic Mobilith 007.
 - m Wheel ends, hubs, etc. shall be completely filled with Mobilith 007 grease.
 - The hub caps shall be furnished of non-window type and have fill opening in the cap.
- o Provide single wheel mounting lug nut, galvanized for each wheel stud. Provide single wheel/axle end galvanized pro torque type mounting nut, for each axle end.
 - p STEMCO hubodometer shall be provided on road-side, front axle.
 - q Backing plate to the axle end is not required.
 - s Caging bolts shall be provided in plastic bag and stored in BII box with galvanized pipe plugs installed in the failsafe brake chamber in place of the caging bolts.
- All failsafe brake chamber assemblies to either vent to axle tube or assembly to be sealed
- u S-Cam assembly to have bushings which are open ended to the atmosphere on one side and completely sealed on the opposite side.
- 3.11.1 Wheels and Tires. The Wheels shall be IAW 49CFR393.205 and meet the performance requirements in FMVSS 120. The stlr shall have dual disc type wheels on each axle, 8.25 x 22.5. The rims shall conform to Tire and Rim Association recommendations for the type and size of tires furnished. Tires and rims shall be the same size for all wheels on the stlr.
- a. Tires. Tires shall be steel belted radial tubeless type. Tires shall be of a published rated capacity at least equal to load imposed on each tire with stlr fully payloaded and evenly distributed. Tires and tire ratings shall conform to Tire and Rim Association recommendations. The stlr shall be furnished with Michelin tires, size XZE 11R22.5, load range H. Tire air pressure to be 95 psi, and shall be stenciled on both sides of the stlr. Tires shall have a minimum wear out life of at least 8,000 miles. Tires shall be compounded for off road usage as the same for the truck. Tires furnished shall have a storage life of 4 years.
- b. Tire Changing Tools. The axle jack, lug nut wrench, and two piece breaker bar shall be furnished as part of the BII. Valve caps shall be furnished for all wheel assemblies. Brass inner tire valve extensions shall be furnished.
- c. Wheel Requirements. The wheels furnished shall be hub piloted drum type. Wheels shall have all surfaces cleaned, treated, and painted with CARC paint over zinc rich primer prior to mounting the tire on to the wheel. The inner and outer wheels shall be mounted with wide flanged wheel zinc plated lug nuts, one per stud. Torque wheel lug nuts with use of a torque wrench in proper commercial sequence.
- d. Spare Wheel and Tire Assembly. The stlr shall have an inflated spare tire mounted on a spare wheel or rim, installed in a carrier. The spare tire shall be of the same size, tread design and load range (ply rating) as the tires on the stlr.
- e. Spare Tire Carrier. A spare-tire winch, with stainless steel cable, style carrier shall be installed under the stlr, on the curbside, in an accessible location. A commercial pad lock, brass, keyed alike to the tool and tarp boxes, 2 " to 2" shackle, with key shall be provided for securing the tire within the carrier to prevent pilferage and accidental loss. Threaded fasteners, when used to secure the spare tire in the carrier, shall be stainless steel. The carrier shall enable the safe removal of the tire from the carrier and return from the ground without personnel positioning part of their body under the spare tire assembly.
- 3.12 Brakes. The brakes shall meet the performance requirements of 49CFR393, as applicable.

- 3.12.1 Service Brakes. The service brakes shall be of the full air internal expanding type and shall conform to 49CFR393, as applicable. The braking system shall be installed so as to have protection against damage caused by objects striking components, and meet the requirements of FMVSS121. The braking system shall include:
- (a) Automatic slack adjusters IAW 49CFR393.53
- (b) Plastic tubing lines
- (c) Hose connections IAW FMVSS106 and SAE J702
- (d) All other components required for a complete-air-brake system.
- (e) Burnish brakes per commercial standards on vehicles going to test (PVT).
- (f) Extended life linings without metal content
- (g) Air lines shall be secured to prevent rubbing and hanging down. All holes that air lines and electrical harnesses go through shall have grommets
- (h) That slack adjuster and air chambers shall be mounted above the bottom of the axle tube.
- (i) Brake chambers relay emergency valve
- (j) Air reservoirs to have remote operating drain valve control positioned on the road side of the vehicle platform.
- (k) No brake backing plate is to be furnished.
- 3.12.1.2 Service Brake Performance. The stlr service brakes with the use of the truck tractor-stlr combination, with rated payload, shall meet the stopping distance requirements of 49CFR393.52.
- 3.12.2 Glad Hands. The glad hands shall conform to SAE J318. Glad hand location shall comply with SAE J702 with spring loaded dust covers that close automatically.
- 3.12.3 Parking brakes. The parking brakes shall be IAW 49CFR393.41 and 49CFR 571.121. The spring parking brakes shall be on each axle and shall automatically apply upon disconnection of the emergency air lines and under emergency conditions. The parking brakes shall hold the fully loaded stlr on a 30% longitudinal grade facing both uphill and downhill. A spring brake performance test on a 30% grade is required on each vehicle.
- 3.12.4 Anti-Lock Brake System (ABS). ABS shall be on all 3 axles, be 12/24 volt, and shall meet current industry and CFR49.571.121 performance requirements, using 3 Modules and 6 sensors. The ABS Electronic Control Unit (ECU) shall include wiring provisions to transmit the stlr (cable, SAE J2394) ABS malfunction signal to the prime mover cab. ABS systems that are used on PLC (Power Line Carrier) communication technology to transmit ABS malfunction shall be provided. The blink light operation shall be in view of truck operator. The ABS diagnostic box shall be water proof to road splash/spray. The diagnostic warning light shall be mounted on an angle at the left side front of the stlr.
- 3.13 Upper fifth wheel plate. The upper fifth wheel plate shall be designed for completely covering, and for use with, either a full oscillating or fore and aft rocking fifth wheel. It shall be bolted in place with Huck bolts or an equivalent fastening system that provides comparable characteristics for maintaining torque and the necessary strength properties. All blind cavities in the mounting frame area shall have 1" drain holes for water removal. The upper fifth wheel plate shall conform to CFR393.70(b). The bottom surface of upper fifth wheel plate to be coated with GAA grease (MIL-PRF-10924) or equal. The forward end of the upper fifth wheel plate shall have a turned up lip not less than 3 inches high for ease of coupling. The lip shall provide for a smooth interface with the M915A3/A4 5th wheel top plate urethane inserts. All lip edges shall have a " 45 degree chamfer (except back edge). The lip may have cutouts for electrical and brake air provisions.
- 3.13.1 Kingpin. The kingpin shall be 2", of heat treated alloy steel at 380-420 BHN, and shall conform to SAE J700. Installed kingpins shall meet or exceed the performance requirements of the American Association of Railroads (AAR) standard M-931, and the Truck and Trailer Manufacturer's Association (TTMA). The material shall be AISI 4320H or 4718H, Spool Style, and have strength of 190,000 P.S.I. ultimate strength, and 145,000 p.s.i. yield strength.
- 3.14 Landing Gear (LG). The minimum requirements are listed in below paragraphs a through z. Those features and performance not defined in the below paragraphs are to be the contractor's commercial design.
 - a. Exceed all AAR M-931 and all TTMA RP-4 performance specifications.
- b. Shall have a upper housing and retract tube of material that has minimum yield of 80,000 pounds.
 - c. Shall meet the Industry standard TTMA mounting plate.
 - d. Shall have a side load capacity of 32,000 pounds.
 - e. Shall have a static vertical load capacity of a minimum of 200,000 pounds .
 - f. Shall have a minimum of 62,500 pounds lifting capacity at 100 foot-pounds input torque.

- g. The gear box high ratio to be 2.5 turns per inch of travel.
- h. The gear box low ratio to be 33 turns per inch of travel.
- i. A sealed system (gear box) specially designed to shift easily even in sub zero temperature.
- j. Shaft seals added to all driveshaft and crankshaft bushings.
- k. The grease tube completely surrounds the elevating screw.
- 1. Self-lubricating powdered metal shaft bushings for increased service life.
- $\mathfrak{m}.$ The landing gear shall include double-d crank handle connection and brace attachments.
- n. The landing gear hardware installation to stlr shall be rated for 15% side slope and 30% longitudinal slope (up and down).
- o. The landing gear shall have a minimum 5 year warranty.
- p. The landing gear shall use premium grade lube (rated for -60 degree F to 225 degree F).
- q. The landing gear shall be located to allow coupling to truck-tractors with fifth wheel height ranging from 50" to 56" (empty).
- r. In addition, two (2) soft sand/soft mud ground boards (24"x24"x2") with " beveled edges, shall be provided for landing gear feet. This item shall have a galvanized-painted handle. Also these two boards shall be fabricated with Apitong hardwood (TTMA load rating per 3.18.1.1) and small diameter spiral galvanized nails. Stowage provisions for these two Apitong soft terrain boards shall be in the BII box, when not in use.
- s. Reserved
- t. Stowage provisions to be provided for the landing gear box handle that will hold the handle in place during off road operations.
- u. The landing gear to be braced to frame in both lateral directions and in fore and aft direction for slopes and wind conditions specified herein.
- v. The landing gear to have a minimum of 18" of travel.
- w. The gear box to be commercial "no lube" type.
- x. The L.G. shall be painted per requirements herein for ferrous material.
- y. The removable cushion foot shall be installed which absorbs 50 percent more shock than conventional footwear, also, the cushion foot can be removed with a single bolt.
- z. A wrap around upper leg cover to prevent water infiltration.
- 3.15 Lighting. The performance lighting test shall be IAW FMVSS-108.
- 3.15.1 Lighting. All running lights and reflectors with the exception of the rear side marker lights shall be mounted in recessed or otherwise guarded locations, for protection. The electrical end connections shall be greased to current commercial standards. The brake lights shall override the four-way emergency flashers or the two systems shall be independent of each other. Lights and reflectors shall not be mounted on vertical surfaces of the rube rail. Turn signal lamps shall conform to SAE J588. All electrical wiring shall conform to SAE J1292. The rear identification lights are to be located in a protected location. Grounding screws shall be to commercial standards for extended life without maintenance.
- 3.15.2 Running Light Requirements. All vehicle running lights except blackout running lights requirements shall be of the commercial U.S. 12/24 volt LED type that fully meets the DOT/FMVSS requirements when 12 or 24 volts D.C operate the running lights. License plate light and related harness is not to be furnished. Blackout LED running lights (tail, turn, stop) lights are to be set up for 24 volt only IAW STANAG 4381. Midship turn signals are not to be furnished. Conspicuity markings using reflective sheeting tape with extended life shall be furnished. Commercial aluminum frame reflectors (painted before assembly) are to be used. All electrical wiring is to conform to SAE J1292.
- 3.15.2.1 Blackout Lighting System. A blackout 24 volt LED vehicle running light system for tail light, stop light, and turn signals (per STANAG 4381) shall be provided (ref. 12258212/19207 dwg, 24 volt). The energy emission of any vehicle light source to be illuminated in blackout mode shall be limited to the visible spectrum of 380 to 700 nanometers (nm), with the following exception: energy may be radiated in the 700 to 1200 nm band range provided it is less that 1% of the energy radiated in the 380 to 700 nm band. The 24 volt lamp assembly is to include one, yellow, solid state lamp in the center and a pair of red, solid state lamps on each side of the center lamp. The four red lamps will appear as individual lights up to 60 feet, from 60 to 120 feet the four red lights will converge into two points of light. Lights will be visible at 1000, plus or minus 200 feet. When vehicle is on a 20 percent downgrade no light is to be visible from an altitude which exceeds 400 feet.
- 3.15.3 LED. The LED's shall be IAW SAE J1889 and related electrical harness wires are to be of commercial design (ref. Peterson); currently being produced and marketed by the supplier, and fully meet the LED light requirements described herein for one LED running light system, operational with either 12 or 24 volt.
- 3.15.3.1 Electrical Harness Requirements. All electrical harness connections are to be water tight, environmentally sealed, positive retention type to protect it from rain, road spray, etc. The frame mating surfaces between LED lights, and related harnesses, clamps shall be cleaned, treated, primed and painted prior to installation of electrical components. All LED lights, reflectors and electrical wiring shall be mounted in recessed or otherwise protected locations. Wiring shall be secured to prevent chaffing and loose connections.

3.15.4 Electrical Receptacle. The 7 pin, 12 volt commercial electrical receptacle (per SAE J560) with spring cover and 12 pin, 24-volt electrical power inlet receptacle (P/N MS75021-1) are to be furnished and be interconnected right after these two receptacles without the use of circuit breakers. Both receptacles are to be located as required by SAE J702.

3.15.4.1 Receptacles. The stlr shall be equipped with one 12-contact receptacle with cover, and one 7-contact receptacle with cover installed at the front of the stlr. The 12- contact receptacle shall conform to MS75021-1 and be equipped with a cover assembly conforming to drawing 7731428, nut grommet, retainer conforming to drawing 7723309, and grommet, electrical connector conforming to drawing 7722333. The 7-contact receptacle shall conform to SAE J560 round socket for an intervehicle connector cable. The 12-contact receptacle shall be provided with components to reduce the input voltage from 24 V to 12 V except for the blackout circuits. Interconnections between the 12-contact and 7-contact receptacles shall be as per Table 1V below:

Table lV: 24V CONNECTOR PIN ASSIGNMENTS

PIN	USE
A	24V left blackout tail
В	Circuit 3 (12V left turn)
C	24V right blackout tail
D	Circuit 1 ground
E	Circuits 2 and 6 (12V service)
F	24V blackout stop
H	Not used
J	Not used
K	Not used
L	Circuit 5 (12V right turn)
M	Not used
N	Not used

In addition, the connection between circuit 2 and 6, on the 7 pin connector, shall have a readily accessible external switch to allow for breaking of this circuit when the 7 pin connector is attached to the towing tractor in lieu of the 12 pin MS connector. Circuits B and J on tactical truck tractors, are combination stop and turn signal indicator circuits. The normal 12 V turn signal lights will function both as turn signals and stop lights and the normal 12 V stop lights will not be in operation when the stlr is connected to a towing vehicle with a 24 V power supply. Because of this condition, the number 4 stop light circuit is not connected to the 24 V, 12 contact receptacle.

- 3.16 Rear End Protection. The rear wheels shall be within 12" of the stlr lower bumper. CFR-49CFR571.223 and 49CFR571.224 are not applicable with tires within 12" of the rear bumper. In addition, furnish two rubber dock bumpers that shall extend between 2.0 and 4.5 inches beyond the rear of stlr. The rubber dock bumper shall be attached IAW commercial standards.
- 3.17 Mud Flaps. Anti-Sail mud flaps shall be provided behind the rear wheels IAW SAE J682 and installed IAW commercial standards.
- 3.18 Platform. The platform shall have a flat front (when the bulkhead is removed) and stainless steel stake pockets that are located sufficiently outboard to provide a minimum of 90'' load space width inside the racks for the entire length of the load surface. If protruding type pockets are provided, they shall be protected all around by a stainless steel rub rail 2 inches wide and 5/16" thick. The stlr deck shall present no restrictions on the sides or end to the opening and closing of the doors of mounted containers or to access by forklifts to tine pockets in pallets and TRICON's located on the stlr deck.
- 3.18.1 Decking. The requirements are for open areas of the stlr platform to have full length, non-pressure treated, dense Apitong/Keruing hardwood planks, 1 3/8 inch thick with vertical finger joints and be of non-ship-lap type. Finger joints are to be bonded together using adhesive MIL-A-22397 or adhesive MMM-A-181. Finger joints are to be a minimum of 60 inches apart. The board width is to be 6 or 8 inches. The deck boards are to be attached to each frame cross member with two plated counter-sunk self threading screws. The ends of each full length deck board shall be supported by frame structure. The floor deck boards is to be 3/8" above top deck/platform metal surfaces.
- 3.18.1.1 Test Performance Requirements. Each floor board shall be certified to have been successfully proof loaded, exceeding Truck Trailer Manufacturers Association (TTMA) load rating criteria by continuously moving each board lengthwise through a mechanism exerting a constant test load along the board's entire length. This mechanism shall reject any plank, which does not meet the TTMA load rating criteria. The finger joints shall withstand a minimum bending strength of 13,300 psi.

- 3.18.1.2 Attachment of Flooring. Flooring shall be secured with countersunk zinc plated self tapping screws. Not less than two securing screws shall be installed at each cross sill/member. The top of each countersunk screw shall not be less than 3/8" below the top of the wood surface.
- 3.18.2 Stake Pockets. Stainless steel stake pockets shall be furnished at 24" on center on all stlrs. Stake pockets shall be protected, on all three sides of the platform by steel rub rails not less than 2 inches wide and not less than 0.31inch thick. Mounting holes shall be provided on both main stainless steel rub rails and pockets for side racks to be secured. A positive stainless steel pin to be provided attached to side rack assembly feature. This is to keep the side racks from "jumping up" during rough terrain travel. Stake pockets shall have welded in supports for holding wood deck boards in place that end (in part) next to the welded in stake pocket. Stake pockets shall be painted after assembly with commercial primer, epoxy primer, and finish CARC top coat.
- 3.18.3 Front Bulkhead. The front bulkhead type shall be a wraparound, bolt on and be constructed of aluminum (6061-T6) on each stlr. Inside stowage of front bulkhead with space for side racks, and bows. It shall be a removable type that meets 49CFR393.106 (d) (1) standards, and includes handles to allow lift off by personnel. Provision shall be provided on the structure for fork truck removal, replacement, etc. The height shall be compatible with installation of the side rack kit with V-front construction (Ref. Aero Industries Inc). The front bulkhead shall be treated, primed and painted on all surfaces. The inside of the front bulkhead stowage space shall be tuff coated or equivalent (3/8 thick min.).
- 3.19 Side Rack Panel Kit. This kit consists of all the panels required for one stlr. This includes the features to retain panel assemblies on place during rough terrain travel. The stlr shall be furnished with side rack kits when specified by the procurement activity. The side panel on the stlr shall be stowed at the front bulkhead. The panels shall be secured during off road operations, when stowed
- a. Height 4 feet.
- b. Panel material 6061-T6, extruded aluminum at .125" thick or the Fiber Reinforced Panels (FRP), 5/8" thick with exterior plywood or Fiber-Lite Side-Kit exterior plywood panel assembly. The fiberglass exterior shall be on both sides. The color shall be green 383 or brown 383. All exposed (edges) shall be sealed. The fiber-lite-side-kit panels with FRP on both sides of plywood also available with an aluminum metal wrap with handles. All following requirements shall be as an option to the aluminum panel call out, as applicable.
- c. All sides of panels, stakes, panel top rail to be painted with commercial wash primer, epoxy primer and then CARC top coated as same color as specified for the stlr. FRPs shall have color incorporated directly into their base material.
- d. When the racks are installed, the slats shall be inside the load space, with the upright stake posts on outside. The stakes shall be extruded aluminum, 6061-T6.
- 3.19.1 Detail requirements for side rack kit. The aluminum panels shall be reinforced at the top, bottom and each end. The aluminum panels shall be corrugated, ribbed or reinforced to provide stiffness. Individual panel sections shall be 4 feet wide and 4 feet high. The intermediate side sections shall be interchangeable on the same side, except for the adjusting sections. The cross section configuration on the vertical panel edges shall be such that adjoining panels will interlock or overlap. The panel tops shall be parallel with the platform surface and positively fastened together for rigidity and alignment. Panels across the rear shall be provided. All panels shall be readily removable by hand and shall show no evidence of binding or jamming.
- 3.19.2 Top Rail of Panels. All panels to have top aluminum 6061-T6 rail that protects the panel. The top rail and panel to be painted before assembly. The top rail to have provisions for fork lift truck/hand removal/installation.
- 3.19.3 Reserved.
- 3.20 Tarpaulin Kit. When specified (see 6.2), stlr shall be provided with a kit with roof bows, a fitted tarpaulin and tiedown ropes. The roof bows shall be spaced on centers of not more than 48 inches.
- 3.20.1 Tarpaulin. The stlr shall be equipped with a one-piece tarpaulin. All stlrs shall be fitted with tarpaulin securing devices. The tarpaulin shall fit the stlr when the side and rear panels are installed. The tarpaulin material shall be vinyl-coated nylon conforming to type II, class 2 of MIL-PRF-20696 or equivalent. It shall cover the bows, side racks, and bulkhead such that when installed, there will be an approximate 24-inch drape over the front, rear and side panels. The front of the tarp shall be contour sewn, such that there is no opening at the corners, and shall form-fit the front end of the stlr. The rear end shall have plain corners that can be wrapped around the rear end and secured with heavy-duty shock straps. The tarpaulin color green or desert tan (383), as applicable, (dyed in fabric) shall be lusterless and have infrared reflectance properties as specified in MIL-C-46168 and MIL-53039.
- 3.20.2 Tarpaulin Details. The edges of the tarpaulin shall have 6-inch hems with three rows of stitching. The tarpaulin shall have heavy-duty spur type grommets or D-rings all around the hem. One grommet shall be in each corner and the midpoint of the front and rear hems. Grommets shall be evenly spaced approximately every two feet between the corner and midpoint grommets on all four edges.

Commercial grommets or D-rings shall be corrosion resistant or zinc-plated steel, -inch size, of forest green or black color.

3.20.3 Reserved.

3.20.4 Tarpaulin Ropes/Straps. A safety tiedown rope shall be provided on each long side of the tarp at the midpoint to retain the tarp if the shock straps should fail or disengage. A tarp tiedown rope shall be attached to the five grommets in the front of tarp. The tiedown ropes shall be polypropylene conforming to MIL-R-24049, type II, three strand, twisted, monofilament, 3/8 inch diameter, color black, approximately four feet long. A gable ridge rope 55 to 60 feet long, 3/8-inch diameter, three strand nylon, shall be provided to prevent sagging of tarp between bows. The nylon gable ridge rope shall be captive sewn into the tarpaulin along the inside center in such a manner as to allow longitudinal movement of a minimum of 12 inches. Rubber shock straps, with lengths as follows, shall be provided for all other grommets. Shock straps shall be nominal x-inch size with "S" hooks in each end. Shock straps shall function properly in temperatures from +125F to -40 F.

Table V: Shock Strap Length

Rear

LOCATION LENGTH

Side $\hspace{1.5cm} 15 \hspace{.5cm} 1 \hspace{.5cm} 1nch \\ Rear Corner \\ \hspace{1.5cm} 31 \hspace{.5cm} 2 \hspace{.5cm} inches$

21 1 inch

3.20.5 Tarpaulin Tiedown Provisions. The stlr shall have fittings to secure the tarp, tarp ridge rope, shock straps and safety ropes as follows. Holes and rings, unless otherwise specified, shall be -inch in diameter.

- . Four D-rings, equally spaced, across the lower front of the front panel/structure assembly (for the tiedown ropes).
- b. One D-ring centered on the front of the front panel/structure assembly (for the ridge rope).
- c. Twelve D-rings or holes in the rear bumper rail or in a separate steel strip (tarp tiedown strip) welded under the rear bumper rail, equally spaced (for shock straps).
- d. One D-ring centered on the rear tarp tiedown strip (for the ridge rope).
- e. Two D-rings, one on each side, near the midpoint (for the side safety ropes).
- 3.20.6 Bows. The stlr shall be equipped with interchangeable tubular bows that fit into the tops of the side panel posts and front panel assembly. The bows shall be spaced approximately every 4 feet. The bows shall be aluminum 6061 (T6). The portion that fits into the post shall be reinforced to prevent bending or crushing and shall have a vertical stop to limit depth into the post. Attachments to and reinforcements of the bows shall conform to industry standards. Each bow shall have a 41-inch rise over the top of the panels and posts. The top center of each bow shall have a recess or fitting to accommodate a tarp with a .38-inch diameter rope. The bows shall have corrosion resistant treatment to current industry standards. The bows shall be painted the same color as the stlr.
- 3.20.7 Tiedown Ropes. The tiedown ropes shall be commercial (synthetic), 3/8 inch nominal diameter, spaced 2 feet apart. The free end of each rope shall be secured using current commercial practices. Tiedown ropes shall be long enough to permit tying them to the platform rub rail. The tiedown ropes shall be stored in the tarp box when not in use.
- 3.21 Paint Requirements.
- a. Supplier recommendations pertaining to best approach to application of his product are to be complied with.
- b. All painting and curing of applied paint products is to be done in ambient temperature above 50 degrees F.
- c. Wood surfaces pertaining to hardwood deck boards and landing gear sand/mud pads are not to be painted.
- d. All painted surfaces are to show good workmanship. Surfaces not showing good workmanship will be repainted by the prime contractor at no cost to the government.
- e. There is to be no paint on electrical harness's, rubber or plastic surfaces. Composite side racks (FRP) shall have forest green color or desert tan color incorporated directly into their base material, as applicable.
- f. All stlrs shall be painted to provide a low reflective CARC surface. The glad hands commercial color marking areas (red emergency and blue service) shall not be CARC painted.

- g. Aluminum bolt-on stowage/tool boxes, and tarp box are to have all interior surfaces spray coated with a good grade polyurethane coating, used on commercial pick up truck bed liners, 3/8 inch to inch thick.
- h. All fasteners (bolts, washers, nuts, screws) shall be zinc coated prior to assembly. All wheel mounting studs and wheel wide flanged single wheel lug nuts are to be phosphate coated and then painted with top coat.
- i. All blind areas are to be undercoated with a good grade commercial undercoating.
- j. All surfaces behind electrical harness and behind brake air lines are to be painted prior to assembly.
- k. Minor scraping and scratches of painted surfaces is allowed during PVT testing and touch up at completion of testing.
- 3.21.1 Paint/Finish Ferrous Surfaces.
- a. Clean ferrous metal by shot or sand blasting.
- b. Treat ferrous metal with zinc phosphate (TT-C-490) coating, or with an alternate process verified to be the equivalent of or better.
- c. Apply moisture cure zinc rich primer (Reference Niles Zinc Rich Primer) 1.8-2.5 mils thick, per supplier recommended application procedures.
- d. Apply epoxy "CARC" primer (MIL-P-53030 or MIL-P-53022) over the zinc rich primer.
- e. Apply paint color IAW FED STD 595; top coat, green 383, color no 34094, in accordance with MIL-C-46168 or MIL-C-53039, 1.8 Mils minimum dry film thickness.
- 3.21.2 Paint/Finish Aluminum. All surfaces of all parts/kits to be cleaned, treated and primed painted to commercial standards. Then the Government epoxy primer and top final coat standards herein shall apply.
- 3.21.3 Stowage box hinge pins. The material for hinge pins are to be stainless steel material.
- 3.21.4 The design goal for the subject vehicle corrosion life is 22 years. All surfaces of the vehicle platform shall be primed and painted, to the requirements herein.
- 3.22 Marking and Data Plates The longitudinal center of gravity of the unloaded M872A4 shall be conspicuously marked by paint on stencil markings on both sides of the stlr. Identification markings and data plates are to be in guidance with MIL-HDBK-1223. The background color of subject vehicle data plates is to be black. A permanent marking (obtained by welding) showing good workmanship of the U.S. Army Registration Number onto the vehicle mainframe member, that can be painted over repeatedly, shall be furnished.
- 3.22.1 Marking The stlr exterior markings shall be placed and sized in accordance with MIL-STD-642. Markings, letters and numbers on the stlr shall be lusterless paint conforming to MIL-C-53039 or MIL-C-46168. Black chip 37030 of FED-STD-595 shall be used over a green or brown background. Green 383, chip 34094 of FED-STD-595, shall be used over black background. Markings, such as tire pressure, vehicle tiedown provisions, center of gravity (empty) and vehicle lift provisions, etc. shall be applied to the stlr in block letters or numbers 2 inch in height. The individual cargo tie down provisions on stlr platform are not be stenciled.
- 3.22.2 Reserved.
- 3.22.3 National Symbol. The national symbol 3-inch black star shall be applied, painted, on front bulkhead.
- 3.22.4 Registration Numbers. The applicable registration number shall be placed on the vehicle identification plate along with the prime contractors serial number. In addition, the registration number shall be welded on main (road side) longitudinal beam web at 2" high and weldment 1/16" minimum height.
- 3.22.5 Tarpaulin. The tarpaulin shall be indelibly marked on the inside in two inch high gothic black lettering with the words "PROPERTY OF THE US ARMY".
- 3.22.6 Identification Plate. The identification plate guidance IAW MIL-HDBK-1223. Vehicle registration number and manufacturer's serial number shall be placed on a data plate. The Transportability Data Plate, and shipping data plate/transportation plate, shall be in accordance with the latest version of MIL-STD-209. The plates shall be attached to the web exterior of the main frame rail on the curb side. The Vehicle Lifting and Tiedown points shall be indicated with paint, and do not need plates.
- 3.22.7 Vehicle Shipping/Transportability Data Plate. A shipping data plate shall be included and shall show the silhouette of the vehicle in transport position indicating the location and capacity of the vehicle tiedown provisions. A data plate showing slinging

through a 40 ft container shall be provided. The plate shall warn against slinging through any other type container or combination of containers. The plates shall be attached by stainless screws, bolts, or rivets in a conspicuous protected location. Data plate shall be as specified in 3.22.8 and shall show the location and capacity of the lift points, vehicle tiedown points. The silhouette of the stlr is to be showed, dimensionally:

- a. Location of the landing gear, axles (including axle spacing).
- b. The longitudinal location of the vehicle center of gravity, with and without rated payload, 34 tons evenly distributed.
- c. Minimum ground clearance.
- d. Height at upper-fifth wheel plate.
- e. Overall height (with and without payload), gross vehicle weight (GVW) and gross combination vehicle weight (GCVW).
- f. The deck height.
- g. Overall length.
- h. Overall width.

A chart shall be provided showing axle, kingpin, and landing gear loads for both curb weight and gross vehicle weight (gvw).

- 3.22.8 Data Plate Material & Location Requirements: Identification plates shall be in accordance with Class 2, Composition C of A-A-50271. Vehicle registration number and manufacturer's serial number shall be placed on a identification (id) data plate. The plates shall be legible and readily viewable to service personnel. Plates shall be attached to the web exterior of the main frame rail on the curb side.
- 3.23 Reserved.
- 3.24 Manual Stowage Box. A water resistant shipping instruction stowage box of composite/plastic material large enough to hold an 8 X 11 inch notebook at least 2 inches thick, for storing manifest, technical papers and/or any other paperwork, shall be mounted on the front of the bulkhead with self taping screws and flat washers (example, Samuel Moore).
- 3.25 Transportability. The transportability performance requirements shall be IAW MIL-STD-1366 and MIL-STD-209.

- 3.25.1 Marine Transport. The stlr shall conform to MIL-STD-1366, section 5.3.6 (ref. C rev, 27Feb 92) in order to comply with Roll On/Roll Off (RO/RO) marine transportability requirements. The stlr, with full payload, shall be capable of entering, cresting and leaving a 15 ramp when coupled to the M878A2 yard tractor. The M878A2 features a hydraulically operated 5th wheel capable of adjustment from 49 to 81 inches. The RO/RO ship is primarily a vehicle transporter that allows vehicles to drive on or off the ship via ramps. A series of external and internal ramps facilitate the loading and discharge of RO/RO cargo. To maintain safe operations, the ramp angle for loading/unloading procedures is no greater than 15 degrees. The prime contractor shall allow for adequate clearance underneath the vehicle to prevent contact at the ramp crest/toe for a 15-degree ramp angle.
- 3.25.2 Lifting Provision. The stlr with rated payload of either breakbulk cargo, or ISO containers, as specified in Table 1, shall be equipped with 4 lifting provisions that meet design requirements of type I of the latest version of MIL-STD-209, able to lift the stlr with full payload. Non-welded parts of the lifting provisions shall be hot dip galvanized. The overall width of lifting provisions from outermost edge to outermost edge shall not exceed 96 inches. Lifting provisions shall have chamfered edges. Also these provisions shall be recessed below the level of the deck. Each of the stlr lifting eye recessed pockets shall have a one (1) inch drain hole. In addition, the stlr twist locks for the 40 foot containers shall be designed to latest MIL-STD 209 standards to allow lifting the ISO container coupled to the M872A4 through the ISO container upper corner locks with full payload in the ISO container.
- 3.25.3 Vehicle Tiedown Provisions. The stlr shall be equipped with four (4) vehicle tiedown provisions to permit its transportation, with 34 tons. The fully loaded stlr shall be suited for Trailer On Flat Car (TOFC) transportation using any American railroad car designed for this purpose, to include securing one (1) 40 foot ISO container and two (2) 20 foot ISO containers, as per Table II.
- $\hbox{(1)} \quad \hbox{Equipment tiedown provision strengths are based on the gross weight of the item/system.}$
- (2) Equipment tiedown points should be located symmetrically about the item of equipment, preferably mounted on the front and rear ends, and higher than the center of gravity.
- (3) Equipment tiedown provisions shall have the required strength to meet the directional load factors in MIL-STD-209. These forces are applied statically and independently. For design purposes, each tiedown provision shall be used for restraint in only one

longitudinal direction, either fore or aft, and only lateral direction, either left or right.

- (4) Items/systems shall be equipped with only four vehicle equipment tiedown provisions.
- 3.25.4 Large Cargo Deck Tiedown Provisions. In addition, the stlr shall be provided with 8 large cargo deck tiedown provisions that have a design load of 75,000 pounds (working load) and an ultimate load of 112,500 pounds. These eight large bed tiedown provisions are to be located in the best possible locations to permit the loading, securement and transport of two each M113 FOV variants, full tracked armored personnel carriers (APC). These tiedown provisions are to be hot dipped zinc coated, recessed, so that they are below the level of the deck, have large (or equal) drain holes in recessed areas, and shall be able to be rotated fore and aft and up and down. Side racks and side rack post pockets shall be located outside the small and large cargo tiedown provisions. The tiedown provisions shall not deform when the stlr is subjected-to rail impact tests. These large cargo deck tiedown provisions are to be by Peck and Hale, part number (p/n) F133.4.1 or equivalent with respect to performance, features and dimensional characteristics. They are to be located with two in the front, two in the back, and four in the middle of the stlr. Required strength of large cargo bed tiedowns is based on the largest break bulk cargo to be carried on the stlr, that is the M113 vehicles.
- 3.25.5 Small Cargo Deck Tiedown Provisions. The stlr shall have small cargo deck tiedown provisions, around the periphery of the bed, including the backside, every 18 inches. These provisions shall be able to rotate fore and aft and up and down. These provisions shall have a design load of 15,000 pounds (working load) and an ultimate load of 22,500 pounds. They shall be hot dipped zinc coated, recessed and installed so that they are recessed in "pockets" with large drain holes.
- 3.25.6 Rub Rail. The stlr shall have a rub rail located on the edge of the stlr platform (both sides and backside). The rub rail bar is to be 5/16 inch thick, 2 inches wide, 304 stainless steel. Side racks pockets, cargo bed tiedown provisions, retractable ISO container locks are to be located inboard of the platform rub rail. Rub rail to be flat after installation per commercial standards.
- 3.25.7 Rail Transport Requirements. The stlr shall be designed for rail transport and with a 12 degree ramp for loading with any M915 series truck tractor. When fully loaded (34 tons), the stlr shall withstand the impact forces encountered in rail transportation at 4, 6, and 8 miles per hour forward, and 8 mph in reverse, under the following conditions, without any weld cracks and /or deformation of frame or components with the payloads identified in Table I.
- a. Coupled and not coupled to any M915 truck tractor
- b. On conventional railcar with the stlr being tied down with chains, load binders and cables and clamps.
- $\ensuremath{\mathtt{c}}.$ On TOFC railcar where the stlr is only coupled to a cushioned stanchion.
- 3.25.7.1 Rail Inpact Testing. The rail transport subjects the stlr to severe longitudinal forces. The MIL-STD-810 rail impact test shall be used to validate the structural integrity of the item and the adequacy of the stlr provisions and procedures. Any item that passes the impact test shall be capable of rail transport without damage to the stlr or tiedowns.
- 3.25.8 Fixed Wing Air Transport. The stlr shall conform to the air transportability requirements of fixed wing aircraft and be transportable, in C-5/C-5A, C-141 (unloaded) and C-17 aircraft.
- 3.25.9 Rotary Air Transport. The stlr shall be transportable unloaded, sling lifted, by CH-47 Helicopter and shall meet the static lift and helicopter flight test requirements of MIL-STD-913.
- 3.25.10 Shipping Munitions. The adequacy for munitions transport and testing shall be in accordance with USADAC&S, transportability testing procedure TP-94-01.
- 3.25.11 ISO Container Securement Provisions. The platform shall have sufficient ISO container securement devices for two (2) 20-foot or one (1) 40-foot container. Also ISO locks (Ref. Peck & Hale, F804-1-3 or equivalent) for centering a 20-foot ISO container on the center of the platform are to be provided. Drain holes for water drainage shall be provided using current commercial standards. These ISO locks shall be retractable, providing a flat platform when not in use. Twelve (12) of these devices, six (6) in each longitudinal half of the stlr platform, shall be provided. The securement devices shall be located for the alignment and securement of two 20 foot ISO freight containers. One 40 foot ISO container, or one centered 20 foot ISO container (20 feet x 8 feet x 8 feet), as specified in ISO 668, with freight container corner fittings conforming to ISO 1161. The securement devices shall be mounted with reinforcements as needed to meet the requirements of 49CFR393.100(e), and rail impact requirements.

- 3.25.12 ISO Container Guide Ramps. Two galvanized (all non-welded components of guide ramps) swing up/swing down 40 foot container guide ramps to aid in container loading shall be provided. The guide ramps shall be operable by personnel in arctic clothing and in MOPP IV clothing. The guide ramp assemblies shall be in a recessed pocket that has drain provisions and shall be located so that no surface of the guide ramp is above the height of the top surface of the stlr top main beam flange. Guides shall be able to guide a 40 foot ISO container in fore and aft directions to the front of the stlr bed ISO securement devices. Guide ramps shall be able to withstand a fully loaded 40 foot ISO container being set down on top of the guide ramp without any deformation to the guide components and/or stlr frame.
- 3.25.13 Land Transportation. The stlr shall meet criteria for unrestricted U.S. CONUS highway transport of overall height less than 162 inches with ISO container of 8 foot (ft) high and overall width of 96 inches. (Reference para. 5.1.2.1 of MIL-STD-1366).
- 3.25.14 Slinging Provision. The stlr with rated payload shall be equipped with lift points to permit slinging a fully loaded stlr IAW type I of MIL-STD-209. In addition, the stlr shall be suited for lifting through container locking devices, when secured to a 40 ft ISO container with vertical acceleration of two gravities (g).
- 3.25.15 Container Securements and Locking Devices. The container securement devices shall meet the requirements of 49CFR393.100 with rated load in containers and shall withstand load conditions equal to or exceeding the longitudinal container acceleration of 2.5 g relative to the stlr. Locking devices shall be able to withstand the loads specified herein when only two of the locks take up the entire rated load. The container securements hardware shall secure the rated cargo weight, under all conditions of transport specified in MIL-STD-209, under TOFC conditions, and in an eight mph impact test in both directions, using a conventional type rail flatcar.
- 3.26 Tool Box. The vehicle shall have three shallow bolt on toolboxes, same size, for BII plus one box for the tarpaulin kit less bows. The doors shall have provisions to keep the lids open during windy conditions. The boxes shall be made of not less than 3/8" 6061-T6 thick aluminum. The tool boxes will be used to store load binders, chains, etc. to the fullest capacity of the tool box. Boxes are to be dimensionally shallow and of moderate height and width. The interior boxes shall have a tuff coat or equivalent spray on (3/8" think min.) The boxes shall be provide for locking with a commercial key padlock. All stlr padlocks shall be keyed alike for individual stlr. Install a stainless steel hinge pin on rear side of box lid. Two inch drain holes shall be provided. The tool box shall be located under the platform, toward the front, of the vehicle, behind the landing gear. The tool and tarp boxes shall not reduce the ground clearance or ramp break-over angle of the vehicle. A design goal is for all tool and tarp boxes to be with exterior diamond pattern on the lids.
- 3.26.1 BII Items. All BII items are to be stored in one of the tool boxes and shall be provided by the production contractor on each stlr

Two ground boards. Ref. 3.14r
Two rubber chock blocks. Ref. 3.6.2
48" - 2 piece galvanized breaker bar for tire wrench.
20 ton hydraulic commercial Jack.
Galvanized tire wrench.
Wheel lug nut socket wrench galvanized
Wheel lug nut socket wrench handle galvanized

- 3.27 Welders and Welding. All welding shall be in accordance with American Welding Society (AWS) commercial standards. All stlr welds are to have written approved weld procedures. No undersize/cold welds are allowed. Weld workmanship will be in accordance with AWS standards. All M872A4 welders shall be re-qualified to AWS standards prior to welding on this program.
- (a) The welds shall be free of undercuts, overlays, overlaps, surface cracks in weld metal or heat affected zone of base metal, porosity, and inclusions, blow-holes/burn through and craters. Minor weld cracks that are discovered during PVT testing and do not grow during the remaining portion of mission testing are allowed.
- (b) Verify that the visual inspection for cracks in welds and base metal and other discontinuities is aided by a strong light, magnifiers, or use of Dye Penetrant or the Ultrasonic method. The extent of a crack may be ascertained by using Dye Penetrant or Ultrasonic's. During Contractor Shakedown test any cracks in welds and base metal shall be documented and repaired. During Government test any cracks in welds and base metal that affect fit, form, and function shall be repaired as soon as possible by a Government approved test site certified welder. Minor weld cracks, will be ground out and dye penetrated to verify crack removal. At the completion of testing and with no additional cracking the weldment will be repaired to AWS D1.2 or AWS D1.1 criteria.
- 3.28 Workmanship. Workmanship shall be of such quality (current commercial standards) as to assure that the stlr and its components shall be free of defects that compromise, limit, or reduce the ability of the stlr to perform its intended mission. Bolted, riveted and welded construction used shall be in accordance with the highest standards of the industry. No sharp edges on any metal, wood, or synthetic surface of the stlr. Examples of good workmanship include:
- (a) All weld spatter shall be removed.

- (b) All paint items considered poor workmanship by the Government shall be re-worked or replaced by the contractor at no cost to the Government.
- 3.29 Quality. Overall vehicle workmanship (current commercial standards) shall be met and be of good appearance. The stlr and its components shall be free of defects that compromise, limit or reduce the ability of the stlr and its components to perform as required. Poor workmanship shall be re-worked or replaced by the prime contractor at no cost to the Government.
- 3.30 Metal Fabrication. Metal used in the fabrication of equipment shall be free from kinks, sharp edges that could cause injury, and sharp bends. The straightening of material shall be done by methods that will not cause damage to the metal. Shearing and chipping shall be done neatly and accurately. AII bends of a major character shall be made with controlled means in order to insure uniformity of size and shape.
- 3.31 Bolted Connections. Bolt holes shall be accurately punched or drilled and shall have the burrs removed. Washers or lock-washers shall be provided in accordance with good commercial practice, and all bolts, nuts, and screws shall be tight for their application. Galvanized metal clamps with rubber inner sleeve shall be used to secure harnesses and hose clamps. No plastic tie down straps shall be used on the stlr.
- 3.32 Servicing and Adjusting. Prior to acceptance of the stlr by the Government inspector, the contractor shall service and adjust the stlr for immediate operational use. The servicing and adjustment shall include at least the following:
- a. Check tire pressure.
- b. Adjustment of brakes by checking stopping distance, etc..
- c. A check for proper functioning of all lights.
- d. Check for lubrication leaks at wheel ends and gear box.
- 3.33 Human Factors. The stlr shall be operable and maintainable by a fifth percentile female through a ninety-fifth percent male wearing arctic and MOPP IV clothing per SAE J925. All hand holds and steps necessary for Army personnel to gain access to locations on the stlr platform shall be an integral and permanent part of the vehicle. The stlr design should utilize MIL-STD-1472, MIL-HDBK-759 and SAE J833 standards and recommended practices, as references. The spare wheel and tire assembly shall be removable and stowable by two operators. All functional items of the stlr and all modes of operations shall be operational in/under arctic conditions (at minus 30 degrees with moderate winds) with personnel in arctic clothing. All functional items of the stlr shall be operational in a safe manner under poor outside conditions. All human engineering requirements are applicable except for the maintenance function involving changing a flat tire, removal and installation of bulkhead, and tarp.
- 3.34 Interface. The stlr shall meet the NATO requirements of standardization of voltage, braking and brake interoperability between tractors and stlrs, electrical connections, fifth wheel attachments and kingpin, blackout lighting systems, and stlr road/terrain movements. Ref. Section 2 of M872A4 PD.
- 4.0 VERIFICATION
- 4.1 Classification of Verifications.
- a. First Article Test (FAT) (See 4.1.1)
- b. Production Verification Test (PVT) (See 4.1.2)
- c. Conformance Acceptance Test (CAT) (See 4.1.3)
- 4.1.1 First Article Test. The first article testing shall be in accordance with Table VI. The PVT inspection sequence shall be established by the Government authorized test center. Three M872A4s shall be tested to this PD. Data to be recorded will be established during Government Process Action Teams (PAT) and on electronic test request. Conformance to FAT requirements shall be reported in Government final test report 30 days after completion of testing.
- 4.1.2 Production Verification Test. To determine conformance to performance requirements in section 3, the M872A4s (as specified in the contract) shall be selected and subjected to examination (see Table VI). The selected stlrs shall be subjected to a road test of 6000 miles each at a site approved by the Government.
- (a) Test Failure. Failure of the stlr as the result of any deficiency of a workmanship or materials nature found during, or as a result of the 6000-mile test, shall be cause for rejection of the stlr. Further, the Government may refuse acceptance of production stlrs until the deficiency has been eliminated. Any deficiency found during, or as a result of the 6000-mile test, shall be prima facie evidence that all stlrs already accepted, prior to completion of the 6000-mile test. Documented deficiencies on all stlrs shall be corrected by the contractor at no cost to the Government.

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- 4.1.3 Conformance Acceptance Test. To determine conformance to Section 3 (inclusive) each stlr shall be examined as specified and operated for a distance of not less than 5 miles without payload, by the contractor. Stlr shall be completely assembled and serviced. Acceptance tests shall be those specified in Table VI. Performance of stlr shall be demonstrated on smooth hard-surfaced roads. After completion of the 5-mile road test, the stlr shall be examined for lubrication leakage and other deficiencies.
- (a) Inspection Provisions.
- (1) Lot Size. An inspection lot shall consist of all stlrs from the identifiable production period (one months production) submitted at one time for examination and test.
- (2) Sampling for Inspection. For the purposes of visual, dimensional, and primary functional inspection, a representative sample shall be selected from each inspection lot. Before sampling, the contractor shall 100 percent inspect the first 20 stlrs to establish a process average, to allow normal sampling in accordance with ANSI/ASQC Z1.4.
- (3) Examinations. Visual, dimensional, and primary functional examinations shall consist of examination of the stlr for conformance to applicable drawings and this purchase description. Examinations shall be performed against Table VI herein. These examinations shall be performed during all phases of manufacturing and subsequent to road test.
- (4) Acceptance Inspection Failure. If the stlr fails to pass any evaluation parameter specified herein, the Government shall stop acceptance of subsequent stlrs until evidence has been provided by the contractor that corrective actions have been accomplished.
- 4.2 Methods of Verification. Methods utilized to accomplish verifications include.
- Analysis. An element of verifications that utilized established technical or mathematical models or simulations, algorithms, charts, graphs, circuit diagrams, or other scientific principles and procedures to provide evidence that stated requirements were met. This shall include DoT, SAE, and EPA.
- Demonstration. An element of verifications which generally denotes the actual operations, adjustment, or re-configurations of items to provide evidence that the designed functions were accomplished under specific scenarios. The items may be instrumented and quantitative limits of performance monitored.
- Examination. An element of verification and inspection consisting of investigation, without the use of special laboratory appliances or procedures, of items to determine conformance to those specified requirements which can be determined by such investigations. Examination is generally nondestructive and typically includes the use of sight, hearing, smell, touch, and taste; simple physical manipulation; mechanical and electrical gauging, measurement, material certification and other forms of investigation.
- Test. An element of verification and inspection which, generally determines, by technical means, the properties or elements of items, including functional operation, and involves the application of established scientific principles and procedures.
- 4.2.1 Basis for Acceptance. Test samples shall meet all test and verification criteria.

Table VI - Requirement Verification Cross Reference Table

Method of Verification.

A-Analysis D-Demonstration E-Examination T-Test

Requirement Title A D E Т FAT

3.0 3.1 3.2/3.2.1 3.2.2 FMVSS	Requirement First Artic General Des	cle Test	Х		Х		х		х		х		Х
X X													
X													
X													
3.2.3	Side Slopes	3		X		X		X		X		X	
3.2.4	Longitudina				X		X		X		X		X
3.3	Performance	2		X		X		X		X		X	
3.3.1/3.3.2 X	Tu	rning & Trac	king Abil	ity		Х		Х		Х		Х	
3.3.3, Tabl	e I Pa	yload and Pa	yload Dis	tributio	n		Х		Х		Х		Х
3.3.3.1	Tracked Veh	nicle Payload	l		Х		X		X		Х		Х
3.4	Life Cycle	=			X		X		X		Х		X
Table II	Operational		**		X		X		Х		X		X
3.4.1	Reliability		X		Х		X		Х		Х		X
3.4.2	Maintainabi	ility al (As appli	X gable)		X		X		X		X		X
	High & Low Temper		.cabic)			Х		Х		Х			
	Solar Radiation	acare			х	21	Х	21	Х	21			
	Rain			Х		Х		X					
:	Sand/Dust				Х		Х		Х				
]	Fording			Х		Х		Х					
:	Storage			X		Х		X					
ī	Wind			X		X		X					
1	Relative Humidity					X		X		X			
i	Atmospheric Press	ure				X		X		X			
I	Wet Mud			X		X		X					
3.4.3.1	Ozone			X			X		X		X		
3.4.3.2	Fungus		X			X		X		X			
3.5-3.6.2	Materials	X		X		X			X		X		X
3.7	Reserved	Trabé al		1 D-	- 1-	Х		Х		Х			х
3.8-3.8.1, X	Table III	venici	le Dimensi	ionai ke	q. s	A		Α		Α			Α
3.9-3.9.1.2	Co	nstruction				Х			х		х		х
3.10-3.10.1		les and Susp	ension			Λ	Х		21	Х	21	Х	21
3.10.2-3.10	.2.1 Su	spension Sys	tem		X		Х		Х		X		X
3.10.2.2	Lubrication	ı		X		Х			Х		Х		X
3.11	Axle and Wh	neel Ends			Х		X		X		X		Х
3.11.1	Wheels and	Tires			Х		X		Х		Х		Х
3.11.1.a	Tires		Х		Х		Х		Х		Х		Х
3.11.1.b	Tire Changi	ing Tools			X		X			X		X	
3.11.1.c	Wheel Requi			х		Х			х		Х		Х
	1												

Requirement											
Title	A	D	E		T		FAT		PVT		CA
T											
3.11.1.d	Spare Wheel and Tire As	sembly		X		X			X		X
3.11.1.e	Spare Tire Carrier	X		X			X		X		X
3.12	Brakes	X	X		X		X		X		X
3.12.1-3,12.1.2	Service Brakes		X		X		X		X		X
3.12.1(a)	Automatic Slack Adjuste	rs	X		X		X		X		X
3.12.2	Glad Hands		X			X		X		X	
3.12.3	Parking Brakes	(2.2.2.)			X		X		X		X
3.12.4	Anti-Lock Brake System	(ABS)		X		X		X		X	
X 3.13	There s Eth charl Dista		37		Х		х		х		Х
3.13	Upper 5th wheel Plate		X		Α		A		A		Α
3.13.1	Kingpin	Х	Х		Х		Х		х		Х
3.14	Landing Gear	X	24	Х	21	Х	Δ.	Х	11	Х	21
5.14	Danding Gear	24		11		21		21		24	
3.15-3.15.1	Lighting		х		х				х		
3.15.2	Running Light Requireme	nts		Х		Х		Х		Х	
3.15.2.1	Blackout Lighting System		Х		х			х		Х	
	3 2 3 2 2 2										
3.15.3-3.15.4.1	& Table IV LED		х		Х		Х		Х		Х
3.15.4-3.15.4.1	Electrical Rece	eptacle		Х		Х		X		X	
X											
3.16	Rear End Protection		Х		X			X		X	
3.17	Mud Flaps	X	X			X		X		X	
3.18-3.18.1.2	Platform	X		X			X		X		X
3.18.2	Stake Pockets	X		X			X		X		X
3.18.4	Front Bulkhead	X		X			X		X		X
3.19-3.19.2	Side Rack Panel	l Kit		X		X			X		X
3.20-3.20.1-3.20).8 Tarpaulin Kit		X		X			X		X	
2 01											
3.21	Paint Requirements			X		X		X		X	
3.21.1	Paint Finish for Ferrou	s Surfaces				Х		X		X	
3.21.2-3.21.4	Paint Finish fo	~ 71				х		х		х	
3.21.2-3.21.4	raint finish it	or Arumirmum				Λ		Δ		Δ	
3.22	Marking and Data Plates			х			Х		Х		Х
3.22.1-3.22.8	Markings Markings	Х		X			X		X		X
3.22.1-3.22.8	Reserved	Δ		Δ			Δ		Δ		Δ.
3.43	VERET AER										

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3.24	Manual Stowage Box		X		X			X		X		X	
3.25	Transportability		X		X		X		X		X		Х
3.25.1	Marine Transport	X		X		X			X		X		Х
3.25.2	Lifting Provisions		х			Х		X		Х		Х	
	=					Λ							
3.25.3	Vehicle Equipment Tiedo	wn Provi	.sions		X			X		X		X	
3.25.4	Large Cargo Deck Tiedow	n Drowin	iona		Х			Х		х		х	
3.23.4	Large eargo beek fredow.	II FIOVIS	10115		Λ			21		21		25	
3.25.5	Small Cargo Deck Tiedow	n Provis	ions		Х			Х		Х		Х	
													
3.25.6	Rub Rail	Х			Х		Х		Х		Х		
3.25.7	Rail Transport Requirem	ents		Х		Х		Х		Х		Х	
3.25.8	Fixed Wing Air Transpor	t		Х		Х		Х		Х		Х	
Requirement	Title	A		D		E		T		FAT		PV	
T	CAT												
3.25.9	Rotary Air Transport			X		X		X		X		X	
3.25.10	Shipping Munitions		X			X		X		X			
3.25.11-3.25.12	ISO Container S	Securemen	nt Provis	sions		X				X		X	
3.25.13	Land Transportation			X				X		X		X	
3.25.14	Slinging Provisions			X				X		X		X	
3.25.15	CS & LD	X				X		X		X			
3.26	Tool Box		X			X		X		X			
3.26.1	BII Items		X			X		X		X			
3.27	Welders & Welding		X		X		X		X		X		Х
3.28	Workmanship			X			X		X		X		
3.29	Quality	X		X			X		X		X		
3.30	Metal Fabrication		X		X			X		X		X	
3.31	Bolted Connections		X		X			X		X		X	
3.32	Servicing and Adjusting			X				X		X		X	
3.33	Human factors		X				X		X				
3.34	Interface (As applicable	e)		X				X		X		X	
4.0	Verification (As application)	able)		X		X		X		X		X	
X													
5.0	Packaging (As applicable	e)			X			X		X		X	
6.0	Notes		X			X		X					

4.3 REQUIREMENTS.

- 4.3.1 First Article Test. To determine conformance to 3.2, when specified (see 6.2), the contractor shall furnish stlrs that shall be subjected to first article inspection IAW 4.1.1.
- 4.3.2 Design. To determine conformance to 3.2, the stlr shall be examined for proper installation of assemblies and completeness of construction, testing results and calculated design criteria, as applicable, by subject PD requirements and the Military Traffic Command criteria.
- 4.3.2.1 Accessibility. To determine conformance to 3.2.1, the design issues shall be verified using MOPP IV gear during Government testing.
- 4.3.2.2 Federal Motor Vehicle Safety Standards (FMVSS). To determine conformance to 3.2.2, the vehicle shall comply with all Federal Motor Vehicle Safety Standards applicable to the type of stlr furnished and in effect on the date of manufacture.
- 4.3.2.3 Side Slopes. To determine conformance to 3.2.3, all side slope testing shall be performed and verified during testing.
- 4.3.2.4 Longitudinal Slopes. To determine conformance to 3.2.4, all longitudinal slope testing shall be performed and verified during testing.

- 4.3.3 Performance. To determine conformance to 3.3, the conditions for performance shall be verified during testing.
- 4.3.3.1 Turning and Tracking Ability. To determine conformance to 3.3.1, and 3.3.2, the prime mover shall be coupled to the stlr and driven to the prime mover's minimum turning circle (90 degrees) to the right and to the left until the axis of the prime mover is perpendicular with the axis of the stlr. There shall be no interference between the stlr and prime mover.
- 4.3.3.3 Payload and Payload Distribution. To determine conformance to 3.3.3 and Table I, the stlr shall demonstrate conformance during testing.
- 4.3.4 Life Cycle Operations. To determine conformance to 3.4 and Table II, the stlr shall demonstrate its reliability and maintainability over a 6.000 mile test.
- 4.3.4.1 Reliability. The stlr shall show conformance to 3.4.1 for 6,000 mile test
- 4.3.4.2 Maintainability. The stlr shall show conformance to 3.4.2 during 6,000 mile test.
- 4.3.4.3 Environmental. To determine conformance to 3.4.3 though 3.4.3.2, the stlr shall be operated and stored at specified temperatures. The stlr shall have no damage as a result of such operation or storage testing.
- 4.3.5. Reserved.
- 4.3.6 Materials. To determine conformance to 3.5, 3.6, 3.6.1 and 3.6.2 all material and components shall have certification that the item and material is as specified.
- 4.3.7 Design. To determine conformance to 3.7, the stlr shall be examined for proper installation of assemblies and completeness of construction, testing results and calculated design criteria, as applicable, by the Military Traffic Command.
- 4.3.7.1 Accessibility. To determine conformance to 3.7.1, the design issues shall be verified using MOPP IV gear during Government testing.
- 4.3.8 Vehicle Dimensional Requirements. To determine conformance to 3.8 and 3.8.1 and Table III, the stlr shall be weighed and measured and results documented at the contractors and test proving ground.
- 4.3.9 Construction. To determine conformance to 3.9, the contractor shall provide material certification of materials used for the main frame and cross-members.
- 4.3.9.1 Frame. To determine conformance to 3.9.1, 3.9.1.1, and 3.9.1.2, the frame shall not be cracked, loose, sagging, or broken. The flanges and splices shall meet commercial standards, as applicable and weldments verified for completeness.
- 4.3.10 Axles & Suspension. To determine conformance to 3.10, the contractor shall provide for material certification for rated capacity of axles and suspension.
- 4.3.10.1 Tri-Axle Assembly. To determine conformance to 3.10.1, the assembly shall meet current industry standards for installation. Also verify assembly of hubodometer to forward road side rear wheel axle.
- 4.10.2 Suspension System. To determine conformance 3.10.2 and 3.10.2.1, the single point suspension shall meet US (e.g., California) conformance requirements and ATEC testing (6000 miles each stlr).
- 4.10.2.1 Lubrication. To determine conformance to 3.10.2.2, the stlr shall be examined for proper lubrication, including taking one wheel apart and examine the amount of grease in the wheel hub, which shall be 100% of hub cavity.
- 4.3.11 Axle and Wheel Ends. To determine conformance to 3.11 a through u, certification, visual inspection, contractor testing, and slope testing at Govt. test site shall be accomplished.
- 4.3.11.1 Wheels and Tires. To determine conformance to 3.11.1, the wheels and rims shall not be cracked or broken. Bolt holes on the wheel shall not be elongated (out of round), nor shall bolts be missing or loose during operation and testing.
- 4.3.11.1.a Tires. To determine conformance to 3.11.1a , the tire shall be of specified type, meet the specified payload and not ware out during testing.
- 4.3.11.1.b Tire Changing Tools. To determine conformance to 3.11.1b, the stlr shall be examined for tools capable of removing and replacing the wheel and tire assembly stored in the BII box.

- 4.3.11.1.c Wheel Requirements. To determine conformance to 3.11.1c, the stlr shall examined for type, assembly, paint, and torque.
- 4.3.11.1.d Spare Wheel and Tire Assembly . To determine conformance to 3.11.1.d, the spare wheel and tire assembly shall be examined for size, load rating, completeness of construction and a properly secured mounting. Verify tire procurement documents through CATL. The ability for two persons to perform the tire change operation shall be verified.
- 4.3.11.1.e Spare Tire Carrier. To determine conformance 3.11.1e, the spare tire carrier shall be operated to verify raising and lowering the tire. Provisions for securing the tire against pilfering or accidental loss shall be demonstrated. The stlr shall demonstrate operability requirements by 5th percentile troops in cold weather clothing and MOPP IV gear.
- 4.3.12 Brakes. To determine conformance to 3.12 through 3.12.4, the brakes shall be examined for conformance to the requirements of 49CFR393.45, 393.46, 393.52, applicable to stlrs. The results shall be documented during assembly and testing.
- 4.3.12.1 Service brakes. To determine conformance to 3.12.1 and 3.12.1.2, the vehicle combination shall be operated to meet the brake performance requirements and tested in accordance with 49CFR393.52. The brake stopping distance shall not exceed 35 ft from a speed of 20 mph on a dry smooth level road free of loose materials.
- 4.3.12.1.a Automatic Slack Adjuster. To determine conformance to 3.12.1a, presence of automatic slack adjusters in the stlr brake system shall be verified and tested in accordance with 49CFR571.105 and 49CFR571.121.
- 4.3.12.1.b Air Brake Lines and Fittings. To determine conformance to 3.12.g, the air lines and fittings shall be examined for assembly cleanliness prior to their installation and shall be examined for leakage during the specified air pressure test. The air brake identification plate shall be examined for content and application to the stlr.
- 4.3.12.2 Glad Hands. To determine conformance to 3.12.2 the glad hands shall be examined for assembly and operation.
- 4.3.12.3 Parking Brakes. To determine conformance to 3.12.3, the stlr with rated payload, shall be placed on a grade, first headed up the grade and then headed down the grade, and tested in accordance with 49CFR571.121. These tests shall be conducted with the stlr connected with the towing vehicle with the tractor brakes not activated. The brakes shall hold the fully loaded stlr on a 30% longitudinal grade. Brakes shall automatically apply upon disconnection of the emergency air lines. The brakes shall hold the stlr stationary for time specified. The stlr shall be towed by prime mover with application of the brakes still maintained, after holding test.
- 4.3.12.4 Anti-Lock Brake System (ABS). To determine conformance to 3.12.4, the ABS Electronic Control Unit (ECU) wiring provisions to transmit the stlr ABS malfunction signal to the prime mover cab shall be verified and tested. System shall be used on PLC (Power Line Carrier) communication technology to transmit ABS malfunction, as applicable. Blink light shall be in view of truck operator. The ABS diagnostic box shall be waterproof to road splash/spray. The diagnostic warning light shall be mounted on an angle at the front of the
- 4.3.13 Upper 5th Wheel Plate. To determine conformance to 3.13, the upper 5th wheel coupler plate shall be examined for proper installation, and will not interfere with the steering, braking, and other maneuvering of the towing vehicle.
- 4.3.13.1 Kingpin. To determine conformance to 3.13.1, the kingpin shall be examined for conformance to SAE J700 and TOFC requirements of AAR M-931.
- 4.3.14 Landing Gear. To determine conformance to 3.14, the stlr shall be placed on a firm surface and the landing gear operated. The towing vehicle shall be coupled and uncoupled and the landing gear raised and lowered. The cranking shall be smooth in operational mode. Cranking effort will be measured. Examination for seal leakage, damage of components, ground clearance, and interference with truck wheels or mud flaps in static or turning situations.
- 4.3.15 Lighting. To determine conformance to 3.15, the contractor will provide certification that all electrical testing meets FMVSS requirements
- 4.3.15.1 Lighting. To determine conformance to 3.15.1 and 3.15.2, lights shall be operated and examined, and reflective devices shall be examined.
- 4.3. 15.2 Blackout Lighting System. To determine conformance to 3.15.2.1, blackout lights shall be operated and examined.
 - 4.3.15.3 LED. To determine conformance to 3.15.3 and 3.15.3.1, the LEDs and related electrical harness shall be operated at

- 12 and 24 volt, and examined for compliance to current DoT/FMVSS requirements.
- 4.3.15.4 Electrical Receptacles. To determine conformance to 3.15.4, 3.15.4.1, and Table IV, the receptacles shall be examined and connections verified.
- 4.3.16 Rear End Protection. To determine conformance to 3.16, the stlr shall be measured to verify distance between tire and rear bumper is under 12". If the rear wheels exceed 12" than 49CFR571.223 and 49CFR571.224 shall apply to DoT requirements. Verify application and assembly of two rear dock bumpers at the rear of the stlr.
- 4.3.17 Mud Flaps. To determine conformance to 3.17, the stlr shall be examined for anti-sail mud flaps for proper installation
- 4.3.18 Platform. The stlr platform shall be examined to verify conformance to 3.18.
 - 4.3.18.1 Decking. Wooden deck boards shall meet all requirements of 3.18.1, 3.18.1.1, and 3.18.1.2.
- 4.3.18.2 Stake Pockets. To determine conformance to 3.18.2, the stlr shall be examined for form, fit and function of installed side racks and weldments verified.
- 4.3.19 Front Bulkhead. To determine conformance to 3.18.3, the assembly, mounting and removal shall be verified. Verify material certification of material on wraparound front bulkhead.
- 4.3.20 Side Rack Panels Kit. To determine conformance to 3.19, 3.19.1, 3.19.2, as applicable, the kit shall be examined and installed on the stlr to demonstrate conformance.
- 4.3.21 Tarpaulin Kit. To determine conformance to 3.20, as applicable, the kit shall be installed to the stlr and verified for fit, form, and function.
- 4.3.21.1 Tarpaulin. To determine conformance to 3.20.1 thru 3.20.7, the complete tarpaulin assembly shall be examined and fitted to the stlr.
- 4.3.21.7 Bolt on Aluminum (6061-T6) Tarp Box. To determine conformance to 3.20.8, the tarp assembly shall be placed inside the aluminum box to ensure form, fit, and function of the box and latch. Verify the latch area for padlock.
- 4.3.22 Paint Requirements. To determine conformance to 3.21 and 3.21.1, the contractor in-place paint procedures and equipment shall be checked for capability, conformance and application.
- 4.3.22.1 Paint/Finish Aluminum. To determine conformance to 3.21.2, 3.21.3 and 3.21.4, the posts and stowage and tool boxes, vehicle platform shall be examined and material verified.
- 4.3.23 Markings and Data Plates. To determine conformance to 3.22, all plates will be examined for correct content, location and attachment.
- 4.3.23.1 Markings. To determine conformance to 3.22.1, the paint shall be examined for proper application and workmanship.
- 4.3.23.2 Reserved.
 - 4.3.23.3 National Symbol. To determine conformance to 3.22.3 and 3.22.4, check for presence of star and registration number.
- 4.3.23.5 Tarpaulin. To determine conformance to 3.22.5, examine Tarpaulin for marking as required.
- 4.3.23.6 Identification Plates. To determine conformance to 3.22.6 all data plates shall be examined to meet the requirements of MIL-STD-209 and shall call out specified information. Verify application, workmanship, location and correct information.
- 4.3.23.7 Vehicle Shipping/Transportability Data Plate. To determine conformance to 3.22.7, the data plate shall be examined for necessary transportability information in accordance with MIL-STD-209. Verify application, workmanship, location and that all information shown is as required and is correct.
- 4.3.23.8 Data Plate Material and Location Requirements. To determine conformance to 3.22.8, insure all data plates shall be examined for application, workmanship, location and information.
 - 4.3.23.9 Reserved. Paragraph 3.23 is reserved.

- 4.3.24 Manual Storage Box. To determine conformance to 3.24, verify conformance to requirements (size, etc).
- 4.3.25 Transportability. To determine conformance to 3.25 and 3.25.13, the stlr shall be examined for conformance to transportability requirements.
- 4.3.25.1 Marine Transport. Verify compliance with RO/RO requirements of 3.25.1, and ability to handle 15 degree ramp when towed by M878A2 yard tractor.
- 4.3.25.2 Lifting and Tiedown Provision. To determine conformance to 3.25.2, 3.25.3, 3.25.4, 3.25.5, and 3.25.6, each tiedown and or provision eye shall be inspected and evaluated for correct location and tested for specified yield strength of MIL-STD-209. The stlr at maximum payload, shall be rail impacted on a rail car in accordance with Method 516.5, Procedure VIII of MIL-STD-810 at 4, 6, 8 miles per hour.
- 4.3.25.3 Rail Transport Requirements. To determine conformance to 3.25.7, and 3.25.7.1, the stlr coupled to an M915 shall be loaded on a rail car, tied down, and its ability to withstand the impact forces encountered in rail transport demonstrated with maximum payload at 4, 6, and 8 miles per hour.
- 4.3.25.4 Fixed Wing Air Transport. To determine conformance to 3.25.8, demonstrate ability of stlr to enter and exit aircraft either by paper study (Military Traffic Management Command) or by actual installation.
- 4.3.25.5 Rotary Air Transport. To determine conformance to 3.25.9, the ability of the Ch-47 to lift and transport (empty) the M872A4 shall be demonstrated.
- 4.3.25.6 Shipping Munitions. To determine conformance to 3.25.10, verify the munitions testing performance requirements.
- 4.3.25.7 ISO Container Securement Provisions. To determine conformance to 3.25.11, verify by examination and demonstration.
- 4.3.25.8 ISO Container Guide Ramps. To determine conformance to 3.25.12, test guide ramps provided for operability by troops in Cold weather and MOPP 4 clothing.
- 4.3.26 Tool Box. To determine conformance to 3.26 and 3.26.1, verify the four tool box assemblies, behind the landing gear, material certification, and locations of the storage compartment to include loading of BII components plus landing gear sand boards, and vehicle chock blocks.
- 4.3.27 Welders and Welding. To determine conformance to 3.27 and 3.27.a, verify all welders are certified to AWS, and examine contractors written weld procedures. All welds, where practical, must be easily accessible for inspection. Weld samples shall be verified at the contractor's facility and shall meet all conditions for the type of weldment. Welded construction utilized shall be in accordance with the highest commercial stlr standards, of the industry.
- 4.3.28 Workmanship. To determine conformance to 3.28, the stlr shall be examined to ensure that its components are free of defects that compromise, limit or reduce the capability of the stlr to perform in accordance with its intended use.
- 4.3.29 Quality. To determine conformance to 3.29, the contractor shall maintain the current highest stlr commercial standards for Quality. In process and documentation shall be verified during the production manufacturing cycle at the contractors facility and prior to shipment of vehicles to test.
- 4.3.30 Metal Fabrication. To determine conformance to 3.30, a visual inspection of stlr shall be performed and free of defects that will affect performance.
- 4.3.31 Bolted Connections. To determine conformance to 3.31, a visual inspection of stlr bolt assembly areas shall be performed and torque of mounting bolts shall be verified.
- 4.3.32 Servicing and Adjusting. To determine conformance to 3.32, a visual inspection of lights and performance test of brakes on stlr prior to shipment shall be performed.
- 4.3.33 Human Factors. To determine conformance to 3.33, the stlr shall be tested at an Army proving ground to determine operation by a fifth percentile female through a ninety-fifth percent male wearing arctic and MOPP IV clothing.
- 4.3.34 Interface. To determine conformance to 3.34, the stlr shall be tested at an Army Proving Ground to determine interface requirements to NATO requirements. The side racks from the fielded M872 and M871 series trailers shall be demonstrated at the contractors facility prior to Government test.

- 5.0 Packaging. For acquisition purposes, the vehicle preservation requirements shall be as specified in the contract.
- 5.1 Service and Adjustment. The manufacturing/contractor shall service/adjust the following for immediate operational use before vehicle acceptance by the Government. Inflate all tires to 95 psi and lubricate the stlr suspension and upper fifth wheel upper coupler plate with GAA grease.
- 6. 0 Notes.

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

- 6.1 Intended use. Subject stlr (M872A4) addressed by this vehicle purchase description is intended for use by the Army for transporting 20/40 feet ISO containers and general break-bulk cargo up to 34 tons. It can also haul the M113 series of tracked vehicles. The prime movers for the M872A4 are the M915, M915A1, M915A2, M915A3, and M915A4 truck-tractors. The M872A4 may be towed by the M818, M931, M932, and M1088 5 Ton tactical truck-tractors at degraded performance under emergency conditions. However, any commercial truck-tractor may haul the stlr only on paved roads as long as they meet DOT requirements.
- 6.2 Acquisition Requirements. Acquisition documents shall specify the following:
 - a. Title, number, and date of this purchase description.
 - b. Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2 thru 2.2).
 - c. If first article stlr is required (see 3.1).
 - d. Vehicle top coat paint color will be Forest Green unless otherwise specified (see 1.2)
 - e. If side rack panel kit is required (see 3.19).
 - f. If tarpaulin kit is required (see 3.20).
- 6.3 International Standardization Agreements. Certain provisions of this purchase description (identified by paragraph number) are the subjects of international standardization agreement (STANAG 2601, 2604, 2606, 4007, 4009, 4381, and AmovP-01). When amendment, revision, or cancellation of this purchase description is proposed which will modify the international agreement concerned, the preparing activity will take appropriate action through international standardization channels, including departmental standardization officer, to change the agreement or make other appropriate accommodations.

Custodian. Preparing Activity.

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SECTION H - SPECIAL CONTRACT REQUIREMENTS HA7440 252.225-7037 01-MAR-1998 DUTY-FREE ENTRY--ELIGIBLE END PRODUCTS ADDED SECTION I - CONTRACT CLAUSES ADDED IF0017 52.211-15 01-SEP-1990 DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS CHANGED IF6685 52.212-5 01-MAY-2002 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUES OR EXECUTIVE ORDERS--COMMERCIAL ITEMS (a) The Contractor shall comply with the following FAR clauses, which are incorporated in this contract by reference, to implement provisions of law or executive orders applicable to acquisitions of commercial items: (1) 52.222-3, Convict Labor (E.O. 11755); and (2) 52.233-3, Protest after Award (31 U.S.C 3553). (b) The Contractor shall comply with the (following, checked) FAR clauses in this paragraph (b) which the contracting officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items or components: _X__(1) 52.203-6, Restrictions on Subcontractor Sales to the Government, with Alternate I (41 U.S.C. 253g and 10 U.S.C. 2402). ___(2) 52.219-3, Notice of Total HUBZone Small Business Set-Aside (Jan 1999). X (3) 52.219-4. Notice of Price Evaluation Preference for HUBZone Small Business Concerns (Jan 1999) (if the offeror elects to waive the preference, it shall so indicate in its offer) ____(4) (i) 52.219-5, Very Small Business Set-Aside (Pub. L. 103-403, section 304, Small Business Reauthorization and Amendments Act of 1994). (ii) Alternate I to 52.219-5. (iii) Alternate II to 52.219-5. _X__(5) 52.219-8, Utilization of Small Business Concerns (15 U.S.C. 637 (d)(2) and (3)). _X__(6) 52.219-9, Small Business Subcontracting Plan (15 U.S.C. 637(d)(4)) ____(7) 52.219-14, Limitations on Subcontracting (15 U.S.C. 637(a)(14)). _____(8) (i) 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323) (if the offeror elects to waive the adjustment, it shall so indicate in its offer). (ii)_Alternate I of 52.219-23. _(9) 52.219-25, Small Disadvantaged Business Participation Program--Disadvantaged Status and Reporting (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323). _(10) 52.219-26, Small Disadvantaged Business Participation Program--Incentive Subcontracting (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323). _X_(11) 52.222-21, Prohibition of Segregated Facilities (Feb 1999) _X_(12) 52.222-26, Equal Opportunity (E.O. 11246) _X_(13) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (38 U.S.C. 4212). _X_(14) 52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793). _X_(15) 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (38 U.S.C. 4212). _X_(16) 52.222-19, Child Labor--Cooperation with Authorities and Remedies (E.O.13126). __(17) (i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (42 U.S.C. 6962(c)(3)(A)(ii). (ii) Alternate I of 52.223-9 (42 U.S.C. 6962(i)(2)(C)). __(18) 52.225-1, Buy American Act-Balance of Payments Program-Supplies (41 U.S.C. 10a-10d). (19)(i) 52.225-3, Buy American Act--North American Free Trade Agreement--Israeli Trade Act--Balance of Payments Program (41U.S.C. 10a-10d, 19 U.S.C. 3301 note, 19 U.S.C. 2112 note) (ii) Alternate I of 52.225-3. (iii) Alternate II of 52.225-3. _(20) 52.225-5, Trade Agreements (19 U.S.C. 2501, et seq., 19 U.S.C. 3301 note). _X_(21) 52.225-13, Restriction on Certain Foreign Purchases (E.O. 12722, 12724, 13059, 13067, 13121, and 13129). (22) 52.225-15, Sanctioned European Union Country End Products (E.O. 12849). ___(23) 52.225-16, Sanctioned European Union Country Services (E.O. 12849). _X_(24) 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration (31 U.S.C. 3332).

___(25) 52.232-34, Payment by Electronic Funds Transfer--Other than Central Contractor Regisration (31 U.S.C. 3332).

___(26) 52.232-36, Payment by Third Party (31 U.S.C. 3332).

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(27)	52.239-1, Priv	acy or Security	Safeguard	s (5 U.S.C.	552a).			
(28)	(i) 52.247-64,	Preference for	Privately	Owned U.S.	-Flag Commercial	Vessels	(46 U.S.C.	1241).
	(ii) Altern	ate T of 52 247	-64					

- (c) The Contractor shall comply with the (following, checked) FAR clauses in this paragraph (c), applicable to commercial services, which the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:
- (1) 52.222-41, Service Contract Act of 1965, As Amended (41 U.S.C. 351, et seg.).
- ____(2) 52.222-42, Statement of Equivalent Rates for Federal Hires (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).
- ____(3) 52.222-43, Fair Labor Standards Act and Service Contract Act--Price Adjustment (Multiple Year and Option Contracts) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).
- ____(4) 52.222-44, Fair Labor Standards Act and Service Contract Act--Price Adjustment (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).
- ____(5) 52.222-47, SCA Minimum Wages and Fringe Benefits Applicable to Successor Contract Pursuant to Predecessor Contractor Collective Bargaining Agreement (CBA) (41 U.S.C. 351, et seq.).
- (d) Comptroller General Examination of Record. The Contractor agrees to comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records--Negotiation.
- (1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.
- (2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.
- (3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.
- (e) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c) or (d) of this clause, the Contractor is not required to include any FAR clause, other than those listed below (and as may be required by an addenda to this paragraph to establish the reasonableness of prices under Part 15), in a subcontract for commercial items or commercial components—
 - (1) 52.222-26, Equal Opportunity (E.O. 11246);
 - (2) 52.222-35, Equal Opportunity for Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (38 U.S.C. 4212);
 - (3) 52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793);
- (4) 52.247-64, Preference for Privately-Owned U.S. Flag Commercial Vessels (46 U.S.C. 1241) (flow down not required for subcontracts awarded beginning May 1, 1996); and
 - (5) 52.222-41, Service Contract Act of 1965, As Amended (41 U.S.C. 351, et seq.).

(End of clause)

CHANGED IA6602 252.212-7001 01-DEC-2002 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS APPLICABLE TO DEFENSE ACQUISITIONS OF COMMERCIAL ITEMS

- (a) The Contractor agrees to comply with the following Federal Acquisition Regulation (FAR) clause which, if checked, is included in this contract by reference to implement a provision of law applicable to acquisitions of commercial items or components.

 () 52.203-3 Gratuities (APR 1984) (10 U.S.C. 2207)
- (b) The Contractor agrees to comply with any clause that is checked on the following list of DFARS clauses which, if checked, is included in this contract by reference to implement provisions of law of Executive orders applicable to acquisitions of commercial items or components
- X 252.205-7000 Provision of Information to Cooperative Agreement Holders (10 U.S.C. 2416).
- _____252.206-7000 Domestic Source Restriction (10 U.S.C. 2304).
- _X___252.219-7003 Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (DoD Contracts) (15 U.S.C. 637).

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252.219-7004 Sma	all, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (Test Program)(15 U.S.C. 637 note).								
_X252.225-7001 Buy	Buy American Act and Balance of Payments Program (41 U.S.C. 10a-10d, E.O. 10582).								
_X252.225-7012 Pi	Preference for Certain Domestic Commodities.								
_X252.225-7014 Pre	eference for Domestic Specialty Metals (10 U.S.C. 2533a).								
252.225-7015 Pre	reference for Domestic Hand or Measuring Tools (10 U.S.C. 2533a).								
	Restriction on Acquisition of Ball and Roller Bearings (Section 8064 of Pub.L. 106-259). (Alternate I)								
_X252.225-7021 Ti	Trade Agreements (19 U.S.C. 2501-2518 and 19 U.S.C. 3301 note).								
252.225-7028 Exc	clusionary Policies and Practices of Foreign Governments (22 U.S.C. 2755).								
252.225-7029 Pre	eference for United States or Canadian Air Circuit Breakers (10 U.S.C.2534(a)(3)).								
	Buy American ActNorth American Free Trade Agreement Implementation ActBalance of Payments Program (
_X252.227-7015 Tec	chnical DataCommercial Items (10 U.S.C. 2320).								
_x252.227-7037 Val	lidation of Restrictive Markings on Technical Data (10 U.S.C. 2321).								
_X252.243-7002 Red	quests for Equitable Adjustment (10 U.S.C. 2410).								
(ansportation of Supplies by Sea (10U.S.C. 2631)Alternate I)Alternate II)								
252.247-7024 Not	tification of Transportation of Supplies by Sea (10 U.S.C. 2631).								
Executive OrdersComm	the clauses listed in paragraph (e) of the Contract Terms and Conditions Required to Implement Statutes or mercial Items clause (FAR 52.212-5) of this contract, the Contractor shall include the terms of the following e, in subcontracts for commercial items or commercial components, awarded at any tier under this contract:								
	reference for Domestic Specialty Metals, Alternate I (10 U.S.C. 2533a).								
	otification of Transportation of Supplies by Sea (10 U.S.C. 2631).								
	(End of clause)								
ADDED IA7022	252.225-7020 01-MAR-1998 TRADE AGREEMENTS CERTIFICATE								
DELETED IS7501	52.211-4019 01-APR-2000 SOURCES OF SUPPLY FOR TIRES ON TACTICAL WHEELED VEHICLES - ALTERNATE (TACOM) I								
SECTION L - INSTRUC	TIONS, CONDITIONS, AND NOTICES TO OFFERORS								
ADDED LF0106	52.211-14 01-SEP-1990 NOTICE OF PRIORITY RATING FOR NATIONAL DEFENSE USE								